

**THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF MISSISSIPPI
GREENVILLE DIVISION**

**DYAMONE WHITE; DERRICK
SIMMONS; TY PINKINS;
CONSTANCE OLIVIA SLAUGHTER
HARVEY-BURWELL**

PLAINTIFFS

VS.

CIVIL ACTION NO. 4:22-cv-00062-SA-JMV

**STATE BOARD OF ELECTION
COMMISSIONERS; TATE REEVES
*in his official capacity as Governor of
Mississippi*; LYNN FITCH *in her
official capacity as Attorney General of
Mississippi*; MICHAEL WATSON *in
his official capacity as Secretary of
State of Mississippi***

DEFENDANTS

DECLARATION OF DAVID A. SWANSON, Ph.D.

I, David A. Swanson, Ph.D., do hereby declare as follows:

1. My name is David A. Swanson. I am an adult resident citizen of Whatcom County, Washington. I have personal knowledge of the facts and matters set forth herein and am otherwise fully competent to offer the testimony hereafter stated.
2. I was retained by Defendants to analyze a report submitted by Plaintiffs' expert Dr. Traci Burch (120206_Dr. Burch Rebuttal Report.Final.Signed(2721085.100)) in this litigation. I was asked to check the accuracy of her use of data in supporting her opinions and, if necessary, to collect and examine data tending to support opinions to the contrary.
3. My qualifications to offer the opinions presented in my report and in this declaration are stated in ¶¶ 1-11 of my report.

As I discuss in detail in this report, I find, in summary, that Dr. Burch's Rebuttal Report contains major errors. These errors, combined with several critical oversights, render her opinion invalid.

4. My observations of Dr. Burch's work are that she:



- (1) claims that the Current Population Survey (CPS) is unreliable,¹ therefore causing her to turn to a new data set, The “Cooperative Election Survey” (CES) for “validated voters.” However, the CES is itself linked back to the CPS to establish weights for “validated voters,” a fact which she does not acknowledge;
 - (2) claims on the basis of an extremely small sample that the CES data showed that 74% of the White Mississippi respondents who said they voted actually did so, while 57% of the Black Mississippi respondents did so.
 - (3) uses a weighting scheme in her “logistic regression” analyses that is not recommended by the authors of the CES study and compounding this failure by declaring that there were “statistically significant” coefficients in her two sample-based logistic regression models, both of which, in fact, turn out to be not statistically significant when the recommended weighting scheme is used. That is, Dr. Burch fails to create logistic regression models from which she can make inferences from the CES samples to the populations in question;
 - (4) incorrectly identifies the counties in Mississippi Supreme Court District 1 in her “Ecological Inference” Model of District 1 by erroneously excluding Bolivar County and erroneously including Adams County; and
 - (5) compares White voters to Non-White Voters in her two Ecological Inference models, one for District 1 and the other for the state as a whole, when, in fact the question is in regard to White Voters and Black Voters.
5. Because of these and other errors and oversights I discuss in the report that follows, I find Dr. Burch has no valid opinion regarding White voters relative to Black Voters both in MS Supreme Court District 1 and in Mississippi as a whole. As such, her “findings” do not rebut my conclusion or change my opinion that Black Mississippians are able to participate effectively in the political process in MS Supreme Court District 1 and in the state as a whole.

¹ Burch rebuttal report, page 4: “Because, as discussed above, turnout estimates in the CPS are unreliable not just because of overreporting in general, but because of differences in overreporting by race in particular, I conducted additional analyses which employed alternative methods of looking at turnout by race that do not rely on self-reported voter turnout.”

6. Next, I examine the background of Dr. Burch's original expert report and the contents of her supplemental report that lead to my conclusions. At page 10 of her initial expert report, Dr. Burch offered the following opinion:

“Black people in Mississippi have had less access to quality education and therefore have lower educational attainment for the reasons discussed in this section; this lower educational attainment leads to lower voter turnout.”

The data supporting this opinion was her calculation on page 10 of her expert report that:

“56.1% of white Mississippi citizens voted in the 2020 general election, compared with 53.0% of Black Mississippi citizens.”

7. Figure 4, found on page 10 of Dr. Burch's expert report, shows that the calculation supporting this opinion relied upon the 2020 Current Population Survey (“CPS”) Voting Supplement, official data collected by the United States Census Bureau. In conducting a “quality control” assessment of this calculation by Dr. Burch, I first examined historical CPS data provided by the Census Bureau and found, as stated in ¶ 128 of my expert report, that Black voter turnout exceeded White voter turnout in Mississippi every year since 2012. Moreover, as stated in ¶ 137 of my expert report, I found that the official 2020 CPS data claimed to have been used by Dr. Burch in generating her calculation contradicted the opinion she formed from this calculation. Instead of showing that 2020 voter turnout by White Mississippians exceeded the 2020 voter turnout by Black Mississippians, it showed that the turnout by the latter exceeded the turnout by the former.
8. As stated in ¶ 149 of my expert report, I found that in using the official 2020 CPS data to come to her opinion, Dr. Burch neglected to use the correct age filters so that only those 18 years and over who are eligible to vote would be included in her calculations. These errors led, in turn, to her erroneous opinion that White voter turnout was higher than Black voter turnout in Mississippi. When the correct age filters are applied, the same CPS data used by Dr. Burch show that Black voter turnout is higher than White voter turnout in Mississippi, which contradicts not only the opinion found in her expert report, but also to the adherence of this erroneous opinion found in her rebuttal.
9. In a further effort to substantiate my finding from the CPS that Black voter turnout exceeds White voter turnout in Mississippi (and has for some time) while simultaneously examining Dr. Burch's opinion that an “overall gap in turnout between Black and white Mississippians exists,” also found on page 10 of her expert report, I examined a second set of data. The Social Science Research Center at Mississippi State University has conducted annual statewide surveys of registration and voting frequency from 2015 to 2021. In ¶ 148-151 of my report, I determined that these additional data also indicated that Black voter turnout generally exceeds White voter turnout in Mississippi.

10. In response to my findings, Dr. Burch submitted a rebuttal report (120206_Dr. Burch Rebuttal Report.Final.Signed(2721085.100)) on February 6, 2023. She admits at page 3 of this rebuttal report that, as I pointed out in my declaration of March 8, 2023, she miscalculated White and Black voter turnout in Mississippi's 2020 general election because she failed to use the correct age filters in her analysis. The CPS educational question is only asked if persons aged 15 years and over and she erroneously included those under 18 in the portion of her analysis related to educational attainment (i.e., she included those aged 15, 16, and 17, who are not eligible to vote). In providing her estimate of overall voter turnout, Dr. Burch compounds this error by including even more of those who are not eligible to vote, namely all of those under the age of 18, to include infants. Overlooking her errors for the moment, I find that, in spite of the fact that she relied on CPS data in her expert report, she now states at page 4 of her rebuttal that she has now determined that "turnout estimates in the CPS are unreliable." This statement repudiates not only her own expert report, but disregards the fact that the CPS represents a nationally recognized source of record for statistics on voter registration and voter turnout on which, like Dr. Burch, I relied in my expert report.
11. Dr. Burch reveals on page 4 of her rebuttal report that she now relies upon for the first time the "2020 Cooperative Election Study" (CES) as a remedial dataset. This national dataset has been available and has been used by experts in the field for many years. This data set has a number of issues in regard to its Mississippi sample. First, the 2020 CPS data that Dr. Burch originally relied upon has 2,548 total respondents, and 1,657 voting-age respondents. By comparison, the CES that Dr. Burch turns to remediate the CPS has 462 voting-age respondents. Generally speaking, when a survey sample is being used to analyze extremely small populations, the largest sample possible is most beneficial. What Dr. Burch asserts is that while the CPS has a larger sample size, that larger sample in its entirety is flawed, it cannot be relied upon, and another source with 1/4 the sample size should be the appropriate source of record for measuring voter turnout in Mississippi.
12. An issue that frequently stands out in survey samples that are weighted to represent a population (such as the CES using 462 people to represent nearly 2.3 million voting age population in Mississippi)² is that more rare populations that have unique combinations of characteristics tend to have high weights that carry the risk of significantly and disproportionately impacting statistics using those respondents – and impacting the interpretation and conclusions based on them.

² See: <https://pages.nyu.edu/jackson/design.of.social.research/Readings/Johnson%20-%20Introduction%20to%20survey%20weights%20%28PR1%20version%29.pdf> for a general discussion of sample survey weighting.

13. There are glaring examples of this problem in the CES. One feature that stands out among its many issues is that the answers for four Black respondents – who count as 51 respondents in reporting survey results when they are weighted using the “commonPostweight.”³ Because the sum of the CommonPostweights in the survey is 419 – that means those four respondents are actually representing 12% of Mississippi’s total sample and 29% of its Black sample. While even one of those respondents could end up changing the results of a table if it found its way into a given analytic cell – the consequences of all four of those respondents being grouped together could be disastrously misleading. With these four respondents forming a potentially influential set of cases in the small subsample she uses in her analysis, Dr. Burch is clearly ignoring the warning found in the CES Study Guide (Ansolabehere, Schaffner, and Luks, 2021: 23): “... we advise caution when analyzing very small subsamples as random measurement error may lead to faulty inferences about analyzing very small subpopulations.”

14. In her rebuttal report, Dr. Burch touts the value of the CES in enabling the researcher to look beyond self-reported voting behavior, on page 4-5:

Because much of the bias in turnout estimates based on the CPS has to do with differential overreporting of voting by race,¹¹ it is necessary to examine alternative sources that do not depend on self-reporting of turnout to estimate turnout by race in Mississippi. First, I examine the 2020 Cooperative Election Study (CES), which contains a sample of 462. Mississippi adults (unweighted). The CES, although it is a survey, independently validates voter registration and turnout for respondents by attempting to match respondents to a database of registered voters maintained by Catalist, a corporation that maintains a national database of voters. Catalist updates their information on voter registration and history with data directly from states. In my analysis, I use the measure of validated voter turnout rather than self-reported voter turnout to estimate racial gaps in turnout, distinguishing this survey from the unvalidated self-reported turnout from CPS or Mississippi State University analyzed by Dr. Swanson.

15. Based on Dr. Burch’s advocacy of the benefits of the CES, and her discussion of how it enables validation of voters by matching to Catalist, and the direction by the authors of the CES:

“We recommend the use of “vvweight” or “vvweight_post” any time researchers wish to characterize the opinions, behaviors, or traits of voters or registered voters. The “vv” stands for

³ Respondent 1236855389 has a weight of 10.1, respondent 1247704425 has a weight of 11.3, respondent 1248507989 has a weight of 14.3 and respondent 1259768185 has a weight of 15. Combined – these four respondents count for 51.7.

“voter validated” and these weights are missing for all respondents who were not validated as (active) registered voters.”

I anticipated an analysis of the CES leveraging the powerful technique of matching voters who said they voted to those who actually voted.

16. On page 6 Burch observes:

CES allows us to examine overreporting of voting. Comparing self-reported voter turnout to validated voter turnout shows substantial overreporting of voting. The CES team **was able to validate** in Catalist that 74% of the White Mississippi respondents who said they voted actually did so, but **were only able to validate** that 57% of the Black Mississippi respondents who said they voted did so. Thus, as the CES shows, corroborating the recent work of Ansolabehere et al. discussed supra, differential over-reporting of voter turnout by race is an important phenomenon that affects estimates of voter turnout in Mississippi and demonstrates the problems with relying only on self-reported voting to estimate racial differences in turnout.⁴

17. In the footnote of this discussion, Dr. Burch states: “For this analysis, which includes reported voter turnout, I weighted the sample by the variable “commonpostweight.” After writing at length about the power that CES has in validating voters and reading the CES technical documentation instructing users to use “vwweight or vwweight_post any time researchers wish to characterize the opinions behavior or traits of *voters or registered voters*” (see page 16) it is inexplicable why Dr. Burch would instead use a weight (commonpostweight) that the CES technical documentation says *not to use* for the analysis Dr. Burch performs. Next, I perform a statistical investigation in an effort to understand the effect of her choice.

18. I attempted to replicate Dr. Burch’s results (See Appendix B for a discussion of approaches to validating voters from the CES technical documentation). Dr. Burch appears to use the third and most rigorous method, just without using the correct weights. In Figure 1.1 I show the self-identification variable “cc20_401.”

⁴ Emphasis added by the author

Figure 1.1: CC20_401 Self-reported voting variable

Voted in 2020
Which of the following statements best describes you?
CC20_401

Voted in 2020	N
I did not vote in the election this November.	1317
I thought about voting this time – but didn't.	620
I usually vote, but didn't this time.	432
I attempted to vote but did not or could not.	433
I definitely voted in the November 2020 General Election.	45660
N	48462

19. Next, in Figure 1.2 I show the CL_2020GVM variable – which is the Catalist variable showing whether the respondent actually voted. A combination of “I definitely voted” from Figure 1.1 and any response to Figure 1.2 would be the number of validated voters, divided by everyone who said they definitely voted.

Figure 1.2 CL_2020GVM Self-reported voting variable

CL_2020gvm - How respondent voted in 2020 general election (if missing, respondent did not have a record of voting)

1. absentee
2. earlyVote
3. mail
4. polling
5. unknown

20. In Table 1.1, for white voters, I show the CC20_401 (self-reported voting) variable at the top, for those who “definitely voted”. On the left of Table 1.1, I show the responses for CL_2020gvm. Associated with the code of “5” under the first column, we can see in the second column of Table 1.1 that there were 127 (weighted) white respondents (135 unweighted) who reported they voted and were validated (we just don’t know in what manner they voted). Continuing on to the “NA” code in the first column, we can see in the second column that there were 45 (weighted) white respondents (49 unweighted) who reported that they voted but were not validated. In this case, the 127 weighted White voters who were validated divided by 172, the total number of weighted White respondents who stated that they voted yields an estimate of 73.6% white– matching Dr. Burch’s estimate. The problem here is that this estimate is using the incorrect “commonpostweight”.

Table 1.1 Calculation of Validated white Voters Using “Commonpostweight”

inputstate	28	
race	White	
	Def Voted	
5	127	
NA	45	
Grand Total	172	
Voted and Validated	73.6%	

21. Similarly in Table 1.2, for Black voters, I show the CC20_401 (self-reported voting) variable at the top, for those who “definitely voted”. On the left of Table 1.2, I show the responses for CL_2020gvm. Associated with the code “5” under the first column, we can see in the second column of Table 1.2, that there are 81 (weighted) Black respondents (52 unweighted) who reported they voted and were validated (we just don’t know in what manner they voted). Continuing on to the “NA” code in the first column, we can see in the second column that there were 61 Black respondents (35 unweighted) who reported they voted but were not validated. In this case, the 81 weighted Black voters divided by the 143 weighted Black respondents who stated they voted yields an estimate of 57.1% – matching Dr. Burch’s estimate. The problem here again is that this estimate is generated using the incorrect “commonpostweight”.

Table 1.2 Calculation of Validated Black Voters Using “Commonpostweight”

inputstate	28	
race	Black	
	Def Voted	
5	81	
NA	61	
Grand Total	143	
Voted and Validated	57.1%	

22. Using the incorrect weighting scheme, “commonpostweight,” it appears that: (1) 73.6 percent of Whites who reported voting actually did vote; and (2) 57.1 percent of Blacks who reported voting actually did vote. However, a different story emerges when the correct weighting system is used.

Table 1.3 Calculation of Validated white Voters Using the Correct Weighting Scheme, “vvweight_post”

inputstate	28
race	White
	Def Voted
5	115
NA	6
Grand Total	121
Voted and Validated	95.1%

23. On the left of Table 1.3, I show the responses for CL_2020gvm. Associated with the code “5” in the first column of Table 1.3 we can see in the second column that there are 115 (weighted) White respondents (134 unweighted) who reported they voted and were validated. Associated with the “NA” in the first column, we can see in the second column that there are 6 (weighted) White respondents (6 unweighted) who reported they voted but were not validated. In this case, the 115 weighted White “validated voters” divided by the 121 weighted White respondents who reported they voted yields an estimate of 95.1% “Whites who voted and were validated.”

Table 1.4 Calculation of Validated Black Voters Using the Correct Weighting Scheme, “vvweight_post”

inputstate	28
race	Black
	Def Voted
5	70
NA	15
Grand Total	85
Voted and Validated	82.8%

24. On the left of Table 1.4, I show the responses for CL_2020gvm. Associated with the code “5” in the first column of Table 1.4, we can see that in the second column that there are 70 (weighted) Black respondents (52 unweighted) who reported they voted and were validated. Continuing on to the “NA” in the first Column, we can see in the second column that there are 15 (weighted) Black respondents (9 unweighted) who reported they voted but were not validated. In this case, the 70 weighted Black “validated voters” divided by the 85 weighted Black respondents who said they voted yields an estimate of 82.8% “Blacks who voted and were validated.”

25. Had she used the correct weighting scheme, “vvweight_post,” Dr. Burch would have found that 95.1% of White respondents and 82.8% of Black respondents correctly reported that they voted. While we can see that this is less of a difference than found using the incorrect weighting scheme used by Dr. Burch (12.3 % vs. 16.5%), it is here that we begin to see the strain of the CES small sample size. Using the vvweight_post, there are only 6 non-validated white voters (both weighted and unweighted), and only 9 non-validated Black

voters (15 weighted). That is – the numerator for estimating rates of validated voting from the CES for Mississippi are 6 white respondents (out of 140, representing approximately 1.3 million white, NH VAP from the 2020 Census) and 9 Black respondents (out of 61, representing approximately 800,000 any part Black VAP from the 2020 Census). This difference of 12.3% between validated Black and white voters (both based on single-digit sample sizes) *is not statistically significant*, per the results of an Aspin-Welch Unequal Variance, Two sample T-test I ran with $\alpha = .05$, which yielded $p = 0.9743$ (NCSS, https://www.ncss.com/wp-content/themes/ncss/pdf/Procedures/NCSS/Two-Sample_T-Test.pdf). See Appendix C. The irony is that Dr. Burch repeatedly touts the strength of a survey-based voter validation system that in the end she fails both to understand and use correctly.

26. As we can now see, Dr. Burch’s “finding” regarding the validation of White and Black voters in Mississippi is inaccurate for two reasons. First, she used the incorrect weights. Second, even had she used the correct weights, she would have found there was no statistically significant difference between the validated White and Black voters had she conducted an appropriate statistical test. As you will see, in the following section, I continue to examine her use of incorrect weights and failing to take into account sample size when I examine the logistic regression models constructed by Dr. Burch.
27. In combination with Dr. Burch’s statement at page 4 of her rebuttal that “turnout estimates in the CPS are unreliable” it is, indeed, ironic that the “Cooperative Election Survey,” the data set to which she turned because, unlike the CPS, it contains “validated voting results,” the CES (Ansolabehere, Schaffner, and Luks, 2021: 16) weights these validated voters using the CPS:

“A second set of weights was constructed after matching the survey to Catalist. Respondents for whom there was a validated voter registration record were weighted using the same approach as described above, but this time to ensure that those individuals were representative of registered voters (according to the 2020 CPS).”

28. Thus, in her use of CES data because it has “validated voters,” Dr. Burch’s analysis is again tied to the CPS, a data set she declared has turnout estimates that are unreliable. In conjunction with this new data set she introduces two new analytic methods, logistic regression and ecological inference. I now turn to an examination of her logistic regression analysis.

Burch's Logistic Regression model(s)

29. I find a number of problems with the discussion of the logistic model(s) Dr. Burch constructed, including but not limited to, her failure to:
- (1) fully document the input data from the Current Election Study (CES) and not making it clear that she used only 460 of the 462 cases for Mississippi;
 - (2) adequately describe the characteristics of her logistic model(s) in that, among other omissions, she does not describe the “fit” of her model to the data and whether or not any of the assumptions underlying a logistic regression model were violated;
 - (3) identify the statistical package she used to generate the logistic model(s), which turned out to be SPSS;
 - (4) include in her rebuttal the fact that there are exceptional weights in the CES Mississippi sample, which places a lot of explanatory burden on only a few subjects such that if these subjects were eliminated, the characteristics of her logistic model(s) would change substantially (See paragraph 10);
 - (5) report that “Model 1” only correctly classifies 57.5 percent of the voters found in the Mississippi CES sample into the correct category, which is not much better than simply flipping a fair coin for which we would expect to be correct in calling “heads” 50 percent of the time (see Appendix A); and
 - (6) report that she used a weighting scheme not recommended by the authors of the CES study guide for the type of analysis she conducted and compounding that failure by declaring that there were “statistically significant” coefficients in her sample-based logistic regression model labeled as “Model 1” (shown in Table 2 of her rebuttal) and that if the recommended weighting scheme had been used, that there are no “statistically significant” coefficients in “Model 1.”
30. This final and 6th failure essentially renders moot the other problems with her logistic model(s) and inconsequential the discussion she provides of them in her rebuttal because “Model 1” cannot be used to infer from the incorrectly weighted sample data to the “universe” that the sample represents.
31. Before turning to the discussion of the incorrect weights used by Dr. Burch in her logistic regression models, I provide a simple description of weighting for purposes of clarification and understanding.
32. In many sample surveys, the proportion of respondents in the survey with a given characteristic does not match the same proportion found in the entire population of interest. When this occurs, “weighting” is used to make the survey results consistent with what is expected for the entire population (Kish, 1965).
33. As an illustration, I adapt a discussion of gender-based weights from Swanson (1997). In this situation, it was known the frequency of females in the sample for a given community

is not equal to its frequency in the population. Using Amargosa Valley, Nevada, as an illustration, 61.5% (120) of the 195 adults sampled in this community were female, but they only constitute 49% (221) of the total population (452). This “over-representation” of females (and “under-representation” of males) in the sample survey needs to be taken into account in order to correctly infer from the sample to the population as a whole. Using the population and sample data, the “weight” that will do this for females is found by multiplying the total sample (195) by the proportion of females in the population (.49) and dividing this quotient by the number of females in the sample (120), a process that yields $(195 \times .49) / 120 = 0.796$, which can be rounded to 0.80. For males, this process yields $(195 \times .51) / 75 = 1.326$, which can be rounded to 1.3.

34. These weights for females and males, respectively, would be applied to the survey respondents by gender to obtain results that would apply to the population as a whole. As a simple illustration, if the 120 females in the sample all answered “yes” to a question and the 75 males all answered “no,” the sample would show that 61.5% answered “yes.” In order to apply this to the population by taking into account the over-representation of females, we multiply .615 by 0.80, which yields 0.49. That is, 49% of the population of adults in Amargosa Valley, NV replied “yes” to this question.
35. The CES weighting scheme is much more complicated than the preceding example, but underneath all of the complications, it is simply trying to get the sample survey results to the level where they represent the population the sample is intended to represent.
36. Turning now, to the CES, in looking at which of four weighting schemes to use in analyzing data taken from the CES study, here are the recommendations as found in the CES Study Guide (Ansolabehere, Schaffner, and Luks, 2021: 16-17):

“Using Weights

Note that the 2020 CES Common Content includes weights for both the Pre-Election and Post Election waves of the study. The weights are constructed to ensure that the sample is representative of different populations – either adult Americans or adult Americans who are registered to vote.

Variable name	Respondent group	Target population
commonweight	All respondents	Adults
commonpostweight	Answered both waves	Adults
vvweight	Matched to validated registration record	Registered adults
vvweight_post	Answered both waves & matched to registration record	Registered adults

We recommend the use of “commonweight” any time researchers wish to characterize the opinions and behaviors of adult Americans. However, use “commonpostweight” when you wish to characterize the opinions and behaviors of adult Americans but you are using any items from the post-election wave of the questionnaire. We recommend the use of “vvweight” or “vvweight_post” any time researchers wish to characterize the opinions, behaviors, or traits of voters or registered voters. The “vv” stands for “voter validated” and these

weights are missing for all respondents who were not validated as (active) registered voters. This approach differs from previous cycles when all respondents received a value for “vwweight” and those weights were not designed solely for use with voters or registered voters. If seeking to characterize the opinions, behaviors, or traits of voters, use “vwweight” or “vwweight_post” in conjunction with the vote validation variables.”

37. Dr. Burch uses logistic regression to show that white subjects in the CES sample for Mississippi who report as having voted are more likely to be validated than Black subjects in the MS CES sample. In so doing, she uses the “commonweight,” which as can be seen above in the excerpt is designed for characterizing the opinions and behaviors of adult Americans in general. However, she uses the “validation” variable in her logistic model, which according to the same excerpt, needs the “commonpostweight” because she is reaching across to the post-election wave, where the validation of “I voted” takes place. Thus, she has not used the weight recommended in the CES Study Guide (Ansolabehere, Schaffner, and Luks (2021: 16-17).
38. In using “commonweight,” the incorrect weighting scheme for her analysis, Dr. Burch reports in Table 2 of her rebuttal that two of the three coefficients (including the “constant”) in “Model 1” are statistically significant, where *** = $P < .001$, ** = $P < .01$, and * = $P < .05$. In displaying these “p values” she is indicating that she is using a hypothesis test to assess the validity of her model for the entire population that the sample represents (Swanson, 2012: 131-240).

<u>Variable name</u>	<u>coefficient</u>	<u>p level</u>
Black	-0.545	**
Other race	-1.246	
Constant	0.388	***

39. When using “commonpostweight,” the recommended weight for going across into the post-election time period, the coefficients change in value and neither the Black variable nor the constant is statistically significant, a finding I made after replicating her logistic analysis with “commonweight,” the “incorrect weight” and subsequently using “commonpostweight,” the recommended weight for an analysis that reaches into the post-election period (See the Appendix for the NCSS output of these two models, with the replication of Burch’s incorrectly weighted model in Appendix A and the logistic regression model that results when the correctly weighting scheme is used in Appendix B)

<u>Variable name</u>	<u>coefficient</u>	<u>p level</u>
Black	-0.308	(p = .12289), not statistically significant because p > 0.05
Other race	-1.19123	(p = .12849), not statistically significant because p > 0.05
Constant	0.15301	(p = .08171), not statistically significant because p > 0.05

40. Essentially, when the recommended weights are used, one cannot statistically infer (which is what we need to do because the CES data are a sample) that Dr. Burch has constructed a logistic regression model that proves her point. That is, following the path she selected, which was to use hypothesis testing in regard to the model's coefficients, we cannot reject the null hypothesis that each of these three coefficients assembled from the sample data **do not** represent the corresponding coefficient that would be found if we had the entire voting age population data set to analyze. Thus, Dr. Burch has not constructed a valid logistic regression model that represents the entire voting age population in Mississippi.

41. It is important to note that a colleague of mine, L.M. Tedrow, a research associate at Western Washington University, confirmed the results I found using the NCSS statistical package by using the same package that Dr. Burch used, SPSS.

<u>Variable name</u>	<u>coefficient</u>	<u>p level</u>
Black	-0.308	(p = .12289), not statistically significant because p > 0.05
Other race	-1.19123	(p = .12849), not statistically significant because p > 0.05
Constant	0.15301	(p = .08171), not statistically significant because p > 0.05

Here is the confirmatory SPSS output provided by Mr. Tedrow.

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a Black	-.308	.200	2.380	1	.123	.735
otherrace	-1.191	.784	2.311	1	.128	.304
Constant	.201	.131	2.334	1	.127	1.222

a. Variable(s) entered on step 1: black, other race.

42. Dr. Burch's "findings" in regard to using logistic regression in conjunction with the CES data neither rebuts my conclusion nor changes my opinion concerning the ability of Black Mississippians to participate effectively in the political process. As I showed in my initial report: Black people vote at higher rates than White people.

The Ecological Inference Model for District 1

43. In constructing her Ecological Inference (EI) model of existing District 1, Dr. Burch erroneously included Adams County (a county in existing District 2) and erroneously excluded Bolivar County (a county in existing District 1). Again, following my "quality control" protocol, I discovered this by examining the file I was provided that was represented by Plaintiffs as the file Dr. Burch used in her EI analysis of District 1 ("neweicentraldist for EI," a text document). In checking this file, I found that there were 32 block groups with the Adams County Code (28001.....) and zero block groups with the Bolivar County code (28011.....). There should have been 28 of the latter in this file, as is found in the file I was provided that was represented by Plaintiff as the file Dr. Burch used in her EI analysis of Mississippi as a whole ("dataforEI2," a text document).
44. In her Ecological Inference analysis she uses "non-white," not Black, as can be seen in Figure 4 on page 11 of her rebuttal report. So, she is now expressing an opinion about White voters relative to non-white voters, not an opinion about White voters relative to Black voters.
45. On page 10 of her rebuttal, Dr. Burch states that she places the Hispanic population (regardless of race) into the "nonwhite" category she employs in her EI analysis by using "...block group data on the citizen voting age population by race, distinguishing non-Hispanic white population from the non-White population." In so doing, she places White Hispanics of voting age into her non-white category, along with Asian, American Indian and Alaskan Natives, and "other" Non-Black people of voting age. This action serves to further dilute Dr. Burch's ability to provide an opinion about White voters relative to Black voters in District 1.
46. Coupled with her error of excluding all of the 28 Bolivar County block groups from her EI analysis of District 1 and erroneously including all 32 of the Adams County block groups, the fact that she compares white voters to non-white votes, leads me to conclude that Dr. Burch has neither an opinion on District 1 (in terms of its correct definition) nor an opinion regarding White voters relative to Black Voters in District 1.
47. Dr. Burch's "findings" in regard to using the Ecological Inference Method in conjunction with the CES data applied to District 1 do not rebut my conclusion or change my opinion

that Black Mississippians are able to participate effectively in the political process. As I showed in my initial report, Blacks vote at higher rates than Whites in District 1.

The Ecological Inference (EI) Model for Mississippi as a Whole

48. As was the case for District 1, in her Ecological Inference analysis for Mississippi as a whole, Dr. Burch uses “non-white,” not Black, as can be seen in Figure 4 on page 11 of her rebuttal report. So, she is now expressing an opinion about White voters relative to non-white voters not an opinion about White voters relative to Black voters. Moreover, as noted in #21, she further diluted her ability to provide an opinion about White voters relative to Black voters because she placed Hispanics of any race into the non-white category, which for the state as a whole includes 29,061 White (alone and in combination with other races) Hispanics of voting age, along with Asian, American Indian and Alaskan Natives, and “other” Non-Black people of voting age. As a consequence of these actions, Dr. Burch has no opinion regarding White voters relative to Black Voters in Mississippi as a whole.
49. Dr. Burch’s “findings” in regard to using the Ecological Inference Method in conjunction with the CES data relative to Mississippi as a whole do not rebut my conclusion or change my opinion that Black Mississippians are able to participate effectively in the political process. As I showed in my initial report: Blacks vote at higher rates than Whites in Mississippi as a whole.

In summary, I find that Dr. Burch’s Rebuttal Report contains major and other errors that along with related oversights render invalid the opinions she presents in it, to include:

- (1) claiming that the Current Population Survey (CPS) is unreliable, therefore causing her to turn to a new data set, The Cooperative Election Survey” (CES) for “validated voters.” However, the CES is itself linked back to the CPS to establish weights for “validated voters,” a fact of which she is either ignorant or ignores;
- (2) Claiming on the basis of an extremely small sample that she incorrectly weighted that the CES data showed that 74% of the White Mississippi respondents who said they voted actually did so, while 57% of the Black Mississippi respondents did so.
- (3) using a weighting scheme in her “logistic regression” analyses that is not recommended by the authors of the CES study and compounding this failure by declaring that there were “statistically significant” coefficients in her two sample-based logistic regression models, both of which, in fact, turn out to be not statistically significant when the recommended weighting scheme is

used. That is, Dr. Burch fails to create logistic regression models from which she can make inferences from the CES samples to the two populations in question;

- (4) incorrectly identifying the counties in MS Supreme Court District 1 in her “Ecological Inference” Model of District 1 by erroneously excluding Bolivar County and erroneously including Adams County; and
- (5) comparing White voters to Non-White Voters in her two Ecological Inference models, one for District 1 and the other for the state as a whole, when, in fact the question is in regard to White Voters and Black Voters.

50. Because of these and other errors and oversights, I find Dr. Burch has no valid opinion regarding White voters relative to Black Voters both in MS Supreme Court District 1 and in Mississippi as a whole. As such, her “findings” do not rebut my conclusion or change my opinion that Black Mississippians are able to participate effectively in the political process in MS Supreme Court District 1 and in the state as a whole.

Pursuant to 28 U.S.C. § 1746, I, David A. Swanson, Ph.D., hereby certify under penalty of perjury under the laws of the United States of America that the foregoing is true and correct to the best of my knowledge, information, and belief at the time of making this declaration.

Executed this the 15th day of September , 2023.

David A. Swanson

DAVID A. SWANSON, PH.D.

References

Ansolabehere, S., B. Schaffner, and S. Luks (2021). *Guide to the 2020 Cooperative Election Study Data Release No. 21* (June).

Kish, L. 1965. *Survey Sampling*. New York: Wiley.

NCSS (no date). Logistic Regression. NCSS Statistical Software.
(https://www.ncss.com/wp-content/themes/ncss/pdf/Procedures/NCSS/Logistic_Regression.pdf)

Swanson, D.A. (1997). The “Biosphere” Food Consumption Survey. Presented at the Nuclear Regulatory Commission/Department of Energy Total System Performance Assessment Technical Exchange. Las Vegas, NV.

APPENDIX

Appendix A. Logistic Regression Results when the incorrect weights are used.

NCSS 2020, v20.0.1

5/10/2023 10:10:08 PM 1

Logistic Regression Report

Dataset ...\\msexport460.NCSS
Y (Ref Value) validvote(0)
Frequency commonweight

Run Summary

Item	Value	Item	Value
Y Variable	validvote	Rows Processed	460
Reference Value	0	Rows Used	460
Number of Y-Values	2	Rows for Validation	0
Frequency Variable	commonweight	Rows X's Missing	0
Numeric X Variables	2	Rows Freq Miss. or 0	0
Categorical X Variables	0	Rows Prediction Only	0
Final Log Likelihood	-358.43367	Unique Rows (Y and X's)	6
Model R ²	0.83627	Sum of Frequencies	527.457094326484
Actual Convergence	7.461232E-10	Likelihood Iterations	4
Target Convergence	1E-06	Maximum Iterations	20
Model D.F.	3	Completion Status	Normal Completion
Priors	Equal		

Y Variable Summary

Y	Count	Unique Rows (Y and X's)	Y Proportion	Y Prior	R ² (Y vs Pred. Probability)	Percent Correctly Classified
validvote						
0	245.969947668706	3	0.46633	0.50000	0.02252	50.816
1	281.487146657778	3	0.53367	0.50000	0.02252	63.324
Total	527.457094326484	6				57.491

Coefficient Significance Tests

Independent Variable	Regression Coefficient b(i)	Standard Error Sb(i)	Wald Z-Value H0: $\beta=0$	Wald P-Value	Odds Ratio Exp(b(i))
Intercept	0.25268	0.07911	3.194	0.00140	1.28748
black	-0.54495	0.18019	-3.024	0.00249	0.57987
otherrace	-1.24551	0.64877	-1.920	0.05488	0.28779

Coefficient Confidence Intervals

Independent Variable	Regression Coefficient	Standard Error	Lower 95% Confidence	Upper 95% Confidence	Odds Ratio
----------------------	------------------------	----------------	----------------------	----------------------	------------

X	b(i)	Sb(i)	Limit	Limit	Exp(b(i))
Intercept	0.25268	0.07911	0.09764	0.40773	1.28748
black	-0.54495	0.18019	-0.89811	-0.19178	0.57987
otherrace	-1.24551	0.64877	-2.51708	0.02606	0.28779

NCSS 2020, v20.0.1

5/10/2023 10:10:08 PM 2

Logistic Regression Report

Dataset ...\\msexport460.NCSS
Y (Ref Value) validvote(0)
Frequency commonweight

Odds Ratios

Independent Variable	Regression Coefficient	Odds Ratio	Lower 95% Confidence Limit	Upper 95% Confidence Limit
X	b(i)	Exp(b(i))	Limit	Limit
Intercept	0.25268	1.28748	1.10256	1.50340
black	-0.54495	0.57987	0.40734	0.82549
otherrace	-1.24551	0.28779	0.08070	1.02640

Analysis of Deviance

Term	DF	Deviance	Increase From Model Deviance (Chi²)	P-Value
Omitted				
All	2	728.81738	11.95004	0.00254
black	1	726.08487	9.21753	0.00240
otherrace	1	720.96271	4.09538	0.04300
None(Model)	2	716.86734		

The Prob Level is for testing the significance of that term after considering all other terms.

Log Likelihood & R²

Term(s)	DF	Log Likelihood	R² of Remaining Term(s)	Reduction From Model R²	Reduction From Saturated R²
Omitted					
All	1	-364.40869	0.00000		
black	1	-363.04243	0.19122	0.64505	0.80878
otherrace	1	-360.48136	0.54968	0.28660	0.45032
None(Model)	2	-358.43367	0.83627	0.00000	0.16373
None(Saturated)	6	-357.26388	1.00000		0.00000

Classification Table

Actual	Estimated		Total
	0	1	
0	124.9911	120.9789	245.9699
1	103.2388	178.2484	281.4872
Total	228.2298	299.2273	527.4571

Percent Correctly classified = 57.5%

Logistic Regression Report

Dataset ...lmsexport460.NCSS
Y (Ref Value) validvote(0)
Frequency commonweight

Residual Report

Row	Actual validvote	Pearson Residual	Deviance Residual	Maximum Hat Diagonal
1	1	11.46233	4.49750	0.46074
2	1	11.46233	4.49750	0.46074
3*	1	11.15826	3.86756	0.58141
4*	0	-13.00597	-4.34811	0.46074
5	1	11.46233	4.49750	0.46074
6	1	11.46233	4.49750	0.46074
7*	1	11.15826	3.86756	0.58141
8	1	11.46233	4.49750	0.46074
9	1	11.46233	4.49750	0.46074
10	1	11.46233	4.49750	0.46074
11	1	11.46233	4.49750	0.46074
12	1	11.46233	4.49750	0.46074
13	1	11.46233	4.49750	0.46074
14*	1	2.93353	0.82207	0.92572
15*	1	11.15826	3.86756	0.58141
16*	1	11.15826	3.86756	0.58141
17*	1	11.15826	3.86756	0.58141
18	1	11.46233	4.49750	0.46074
19	1	11.46233	4.49750	0.46074
20*	0	-13.00597	-4.34811	0.46074
21	1	11.46233	4.49750	0.46074
22*	0	-13.00597	-4.34811	0.46074
23	0	-9.64124	-3.73948	0.58141
24	0	-9.64124	-3.73948	0.58141
25*	1	2.93353	0.82207	0.92572
26	1	11.46233	4.49750	0.46074
27*	0	-13.00597	-4.34811	0.46074
28	1	11.46233	4.49750	0.46074
29*	0	-13.00597	-4.34811	0.46074
30*	0	-13.00597	-4.34811	0.46074
31	1	11.46233	4.49750	0.46074
32	1	11.46233	4.49750	0.46074
33	1	11.46233	4.49750	0.46074
34*	0	-13.00597	-4.34811	0.46074
35*	1	11.15826	3.86756	0.58141
36*	0	-13.00597	-4.34811	0.46074
37	1	11.46233	4.49750	0.46074

38	0	-9.64124	|||||||....	-3.73948	|||||||....	0.58141	|||||||....
39*	0	-13.00597	|||||||	-4.34811	|||||||.	0.46074	|||||||....
40*	0	-13.00597	|||||||	-4.34811	|||||||.	0.46074	|||||||....
41	1	11.46233	|||||||..	4.49750	|||||||	0.46074	|||||||....
42	1	11.46233	|||||||..	4.49750	|||||||	0.46074	|||||||....
43*	0	-13.00597	|||||||	-4.34811	|||||||.	0.46074	|||||||....
44	0	-1.78567	||.....	-0.79495	||.....	0.92572	|||||||
45	1	11.46233	|||||||..	4.49750	|||||||	0.46074	|||||||....
46*	0	-13.00597	|||||||	-4.34811	|||||||.	0.46074	|||||||....
47*	0	-13.00597	|||||||	-4.34811	|||||||.	0.46074	|||||||....
48	1	11.46233	|||||||..	4.49750	|||||||	0.46074	|||||||....

NCSS 2020, v20.0.1

5/10/2023 10:10:08 PM 6

Logistic Regression Report

Dataset ...\\msexport460.NCSS
Y (Ref Value) validvote(0)
Frequency commonweight

Residual Report (Continued)

Row	Actual validvote	Pearson Residual	Deviance Residual	Maximum Hat Diagonal
49	1	11.46233	4.49750	0.46074
50	1	11.46233	4.49750	0.46074
51	1	11.46233	4.49750	0.46074
52*	0	-13.00597	-4.34811	0.46074
53	1	11.46233	4.49750	0.46074
54	0	-9.64124	-3.73948	0.58141
55*	0	-13.00597	-4.34811	0.46074
56	1	11.46233	4.49750	0.46074
57	1	11.46233	4.49750	0.46074
58*	1	11.15826	3.86756	0.58141
59	1	11.46233	4.49750	0.46074
60	1	11.46233	4.49750	0.46074
61*	1	2.93353	0.82207	0.92572
62*	0	-13.00597	-4.34811	0.46074
63	1	11.46233	4.49750	0.46074
64	0	-9.64124	-3.73948	0.58141
65*	0	-13.00597	-4.34811	0.46074
66	1	11.46233	4.49750	0.46074
67	1	11.46233	4.49750	0.46074
68	1	11.46233	4.49750	0.46074
69	1	11.46233	4.49750	0.46074
70*	0	-13.00597	-4.34811	0.46074
71*	1	11.15826	3.86756	0.58141
72	1	11.46233	4.49750	0.46074
73*	0	-13.00597	-4.34811	0.46074
74*	0	-13.00597	-4.34811	0.46074
75	1	11.46233	4.49750	0.46074
76*	0	-13.00597	-4.34811	0.46074
77	1	11.46233	4.49750	0.46074
78	1	11.46233	4.49750	0.46074
79	1	11.46233	4.49750	0.46074
80	1	11.46233	4.49750	0.46074
81	0	-9.64124	-3.73948	0.58141
82*	1	11.15826	3.86756	0.58141
83	1	11.46233	4.49750	0.46074
84	0	-9.64124	-3.73948	0.58141
85*	1	11.15826	3.86756	0.58141
86	0	-1.78567	-0.79495	0.92572
87	1	11.46233	4.49750	0.46074
88*	0	-13.00597	-4.34811	0.46074
89	1	11.46233	4.49750	0.46074
90	1	11.46233	4.49750	0.46074
91	1	11.46233	4.49750	0.46074
92	1	11.46233	4.49750	0.46074

93*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
94	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
95	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
96*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||

NCSS 2020, v20.0.15/10/2023 10:10:08 PM 7

Logistic Regression Report

Dataset ...\\msexport460.NCSS
Y (Ref Value) validvote(0)
Frequency commonweight

Residual Report (Continued)

Row	Actual validvote	Pearson Residual	Deviance Residual	Maximum Hat Diagonal
97	1	11.46233	4.49750	0.46074
98	1	11.46233	4.49750	0.46074
99*	0	-13.00597	-4.34811	0.46074
100*	1	11.15826	3.86756	0.58141
101*	1	11.15826	3.86756	0.58141
102	0	-9.64124	-3.73948	0.58141
103*	0	-13.00597	-4.34811	0.46074
104*	1	11.15826	3.86756	0.58141
105*	0	-13.00597	-4.34811	0.46074
106*	1	11.15826	3.86756	0.58141
107*	0	-13.00597	-4.34811	0.46074
108*	1	11.15826	3.86756	0.58141
109	0	-9.64124	-3.73948	0.58141
110*	1	11.15826	3.86756	0.58141
111*	1	11.15826	3.86756	0.58141
112*	1	11.15826	3.86756	0.58141
113	1	11.46233	4.49750	0.46074
114	0	-9.64124	-3.73948	0.58141
115*	0	-13.00597	-4.34811	0.46074
116*	1	11.15826	3.86756	0.58141
117	1	11.46233	4.49750	0.46074
118	1	11.46233	4.49750	0.46074
119	1	11.46233	4.49750	0.46074
120	0	-9.64124	-3.73948	0.58141
121*	0	-13.00597	-4.34811	0.46074
122*	0	-13.00597	-4.34811	0.46074
123	1	11.46233	4.49750	0.46074
124	1	11.46233	4.49750	0.46074
125	1	11.46233	4.49750	0.46074
126*	0	-13.00597	-4.34811	0.46074
127	1	11.46233	4.49750	0.46074
128	1	11.46233	4.49750	0.46074
129*	0	-13.00597	-4.34811	0.46074
130	1	11.46233	4.49750	0.46074
131*	0	-13.00597	-4.34811	0.46074
132*	0	-13.00597	-4.34811	0.46074
133	1	11.46233	4.49750	0.46074
134	1	11.46233	4.49750	0.46074
135*	0	-13.00597	-4.34811	0.46074

136*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
137*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
138*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
139*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
140	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
141	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
142	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
143*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
144*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||

NCSS 2020, v20.0.15/10/2023 10:10:08 PM 8

Logistic Regression Report

Dataset ...msexport460.NCSS
Y (Ref Value) validvote(0)
Frequency commonweight

Residual Report (Continued)

Row	Actual validvote	Pearson Residual	Deviance Residual	Maximum Hat Diagonal
145*	0	-13.00597	-4.34811	0.46074
146	0	-1.78567	-0.79495	0.92572
147*	1	11.15826	3.86756	0.58141
148*	1	11.15826	3.86756	0.58141
149	1	11.46233	4.49750	0.46074
150*	1	11.15826	3.86756	0.58141
151*	1	2.93353	0.82207	0.92572
152	0	-9.64124	-3.73948	0.58141
153*	1	11.15826	3.86756	0.58141
154	1	11.46233	4.49750	0.46074
155	0	-9.64124	-3.73948	0.58141
156*	0	-13.00597	-4.34811	0.46074
157*	1	11.15826	3.86756	0.58141
158	1	11.46233	4.49750	0.46074
159*	0	-13.00597	-4.34811	0.46074
160	0	-9.64124	-3.73948	0.58141
161*	0	-13.00597	-4.34811	0.46074
162*	0	-13.00597	-4.34811	0.46074
163*	0	-13.00597	-4.34811	0.46074
164	1	11.46233	4.49750	0.46074
165	0	-9.64124	-3.73948	0.58141
166	1	11.46233	4.49750	0.46074
167	0	-9.64124	-3.73948	0.58141
168	1	11.46233	4.49750	0.46074
169	1	11.46233	4.49750	0.46074
170	0	-9.64124	-3.73948	0.58141
171	1	11.46233	4.49750	0.46074
172	1	11.46233	4.49750	0.46074
173*	0	-13.00597	-4.34811	0.46074
174*	0	-13.00597	-4.34811	0.46074
175	0	-9.64124	-3.73948	0.58141
176*	0	-13.00597	-4.34811	0.46074
177*	0	-13.00597	-4.34811	0.46074
178	1	11.46233	4.49750	0.46074

179	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
180*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
181*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
182	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
183*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
184*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
185	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
186	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
187	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
188	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
189	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
190	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
191*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
192*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||

NCSS 2020, v20.0.15/10/2023 10:10:08 PM 9

Logistic Regression Report

Dataset ...msexport460.NCSS
Y (Ref Value) validvote(0)
Frequency commonweight

Residual Report (Continued)

Row	Actual validvote	Pearson Residual	Deviance Residual	Maximum Hat Diagonal
193	1	11.46233	4.49750	0.46074
194	1	11.46233	4.49750	0.46074
195	1	11.46233	4.49750	0.46074
196*	0	-13.00597	-4.34811	0.46074
197	0	-9.64124	-3.73948	0.58141
198	0	-9.64124	-3.73948	0.58141
199	1	11.46233	4.49750	0.46074
200	1	11.46233	4.49750	0.46074
201*	0	-13.00597	-4.34811	0.46074
202*	0	-13.00597	-4.34811	0.46074
203	0	-9.64124	-3.73948	0.58141
204	1	11.46233	4.49750	0.46074
205*	1	11.15826	3.86756	0.58141
206	0	-9.64124	-3.73948	0.58141
207*	0	-13.00597	-4.34811	0.46074
208	0	-9.64124	-3.73948	0.58141
209*	0	-13.00597	-4.34811	0.46074
210*	0	-13.00597	-4.34811	0.46074
211*	0	-13.00597	-4.34811	0.46074
212*	0	-13.00597	-4.34811	0.46074
213*	0	-13.00597	-4.34811	0.46074
214	1	11.46233	4.49750	0.46074
215	1	11.46233	4.49750	0.46074
216	1	11.46233	4.49750	0.46074
217	1	11.46233	4.49750	0.46074
218*	0	-13.00597	-4.34811	0.46074
219	1	11.46233	4.49750	0.46074
220*	1	11.15826	3.86756	0.58141
221	1	11.46233	4.49750	0.46074

222*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
223	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
224*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
225*	1	2.93353	|||||	0.82207	|||||	0.92572	|||||
226	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
227	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
228*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
229	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
230	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
231*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
232	0	-1.78567	|||||	-0.79495	|||||	0.92572	|||||
233	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
234	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
235*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
236	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
237*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
238*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
239*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
240	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||

NCSS 2020, v20.0.15/10/2023 10:10:08 PM 10

Logistic Regression Report

Dataset ... \msexport460.NCSS
Y (Ref Value) validvote(0)
Frequency commonweight

Residual Report (Continued)

Row	Actual validvote	Pearson Residual	Deviance Residual	Maximum Hat Diagonal
241	1	11.46233	4.49750	0.46074
242*	0	-13.00597	-4.34811	0.46074
243*	0	-13.00597	-4.34811	0.46074
244*	1	11.15826	3.86756	0.58141
245	1	11.46233	4.49750	0.46074
246	1	11.46233	4.49750	0.46074
247	0	-9.64124	-3.73948	0.58141
248	1	11.46233	4.49750	0.46074
249	1	11.46233	4.49750	0.46074
250	1	11.46233	4.49750	0.46074
251	1	11.46233	4.49750	0.46074
252*	0	-13.00597	-4.34811	0.46074
253	0	-9.64124	-3.73948	0.58141
254	0	-9.64124	-3.73948	0.58141
255*	0	-13.00597	-4.34811	0.46074
256	1	11.46233	4.49750	0.46074
257	1	11.46233	4.49750	0.46074
258*	1	11.15826	3.86756	0.58141
259	1	11.46233	4.49750	0.46074
260*	0	-13.00597	-4.34811	0.46074
261*	0	-13.00597	-4.34811	0.46074
262	1	11.46233	4.49750	0.46074
263*	1	11.15826	3.86756	0.58141
264*	0	-13.00597	-4.34811	0.46074

265*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
266	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
267	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
268	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
269*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
270*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
271	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
272*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
273*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
274	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
275*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
276	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
277*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
278	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
279*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
280*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
281	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
282*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
283	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
284*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
285	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
286	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
287	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
288*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||

NCSS 2020, v20.0.15/10/2023 10:10:08 PM 11

Logistic Regression Report

Dataset ...msexport460.NCSS
Y (Ref Value) validvote(0)
Frequency commonweight

Residual Report (Continued)

Row	Actual validvote	Pearson Residual	Deviance Residual	Maximum Hat Diagonal
289*	0	-13.00597	-4.34811	0.46074
290	1	11.46233	4.49750	0.46074
291	0	-9.64124	-3.73948	0.58141
292	0	-9.64124	-3.73948	0.58141
293	1	11.46233	4.49750	0.46074
294	1	11.46233	4.49750	0.46074
295	0	-9.64124	-3.73948	0.58141
296*	0	-13.00597	-4.34811	0.46074
297*	1	11.15826	3.86756	0.58141
298	0	-9.64124	-3.73948	0.58141
299*	0	-13.00597	-4.34811	0.46074
300*	0	-13.00597	-4.34811	0.46074
301*	0	-13.00597	-4.34811	0.46074
302*	0	-13.00597	-4.34811	0.46074
303	0	-9.64124	-3.73948	0.58141
304	0	-9.64124	-3.73948	0.58141
305	0	-9.64124	-3.73948	0.58141
306*	0	-13.00597	-4.34811	0.46074
307	0	-9.64124	-3.73948	0.58141

308*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
309	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
310	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
311*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
312	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
313	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
314	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
315	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
316*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
317*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
318*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
319	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
320*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
321	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
322	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
323*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
324*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
325*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
326*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
327*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
328*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
329	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
330	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
331*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
332	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
333	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
334*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
335*	1	2.93353	|||	0.82207	|||	0.92572	|||||
336*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||

NCSS 2020, v20.0.15/10/2023 10:10:08 PM 12

Logistic Regression Report

Dataset ...\\msexport460.NCSS
Y (Ref Value) validvote(0)
Frequency commonweight

Residual Report (Continued)

Row	Actual validvote	Pearson Residual	Deviance Residual	Maximum Hat Diagonal
337	1	11.46233	4.49750	0.46074
338	0	-9.64124	-3.73948	0.58141
339	0	-9.64124	-3.73948	0.58141
340	1	11.46233	4.49750	0.46074
341*	0	-13.00597	-4.34811	0.46074
342	1	11.46233	4.49750	0.46074
343	0	-9.64124	-3.73948	0.58141
344*	0	-13.00597	-4.34811	0.46074
345	0	-9.64124	-3.73948	0.58141
346*	0	-13.00597	-4.34811	0.46074
347	1	11.46233	4.49750	0.46074
348*	1	2.93353	0.82207	0.92572
349	1	11.46233	4.49750	0.46074
350*	0	-13.00597	-4.34811	0.46074

351	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
352*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
353*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
354*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
355	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
356*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
357	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
358	0	-9.64124	|||||	-3.73948	|||||	0.58141	|||||
359*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
360*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
361*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
362*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
363*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
364	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
365*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
366	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
367	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
368*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
369	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
370*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
371*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
372*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
373*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
374	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
375*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
376*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
377*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
378*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
379	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
380	1	11.46233	|||||	4.49750	|||||	0.46074	|||||
381	0	-1.78567	||.....	-0.79495	||.....	0.92572	|||||
382*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||
383*	0	-13.00597	|||||	-4.34811	|||||	0.46074	|||||
384*	1	11.15826	|||||	3.86756	|||||	0.58141	|||||

NCSS 2020, v20.0.15/10/2023 10:10:08 PM 13

Logistic Regression Report

Dataset ... \msexport460.NCSS
Y (Ref Value) validvote(0)
Frequency commonweight

Residual Report (Continued)

Row	Actual validvote	Pearson Residual	Deviance Residual	Maximum Hat Diagonal
385*	1	11.15826	3.86756	0.58141
386	0	-9.64124	-3.73948	0.58141
387	0	-9.64124	-3.73948	0.58141
388	0	-9.64124	-3.73948	0.58141
389*	0	-13.00597	-4.34811	0.46074
390	0	-9.64124	-3.73948	0.58141
391*	0	-13.00597	-4.34811	0.46074
392*	0	-13.00597	-4.34811	0.46074
393	1	11.46233	4.49750	0.46074

394*	1	11.15826	|||||||...	3.86756	|||||||...	0.58141	|||||||.....
395	0	-9.64124	|||||||...	-3.73948	|||||||...	0.58141	|||||||.....
396	1	11.46233	|||||||..	4.49750	|||||||...	0.46074	|||||||.....
397*	1	11.15826	|||||||...	3.86756	|||||||...	0.58141	|||||||.....
398*	0	-13.00597	|||||||...	-4.34811	|||||||...	0.46074	|||||||.....
399	0	-9.64124	|||||||...	-3.73948	|||||||...	0.58141	|||||||.....
400	1	11.46233	|||||||..	4.49750	|||||||...	0.46074	|||||||.....
401	0	-9.64124	|||||||...	-3.73948	|||||||...	0.58141	|||||||.....
402	0	-1.78567	||.....	-0.79495	||.....	0.92572	|||||||...
403	0	-9.64124	|||||||...	-3.73948	|||||||...	0.58141	|||||||.....
404*	0	-13.00597	|||||||...	-4.34811	|||||||...	0.46074	|||||||.....
405*	1	2.93353	||.....	0.82207	||.....	0.92572	|||||||...
406*	0	-13.00597	|||||||...	-4.34811	|||||||...	0.46074	|||||||.....
407	1	11.46233	|||||||..	4.49750	|||||||...	0.46074	|||||||.....
408*	0	-13.00597	|||||||...	-4.34811	|||||||...	0.46074	|||||||.....
409	0	-9.64124	|||||||...	-3.73948	|||||||...	0.58141	|||||||.....
410*	1	11.15826	|||||||...	3.86756	|||||||...	0.58141	|||||||.....
411	0	-9.64124	|||||||...	-3.73948	|||||||...	0.58141	|||||||.....
412	0	-9.64124	|||||||...	-3.73948	|||||||...	0.58141	|||||||.....
413*	0	-13.00597	|||||||...	-4.34811	|||||||...	0.46074	|||||||.....
414	0	-9.64124	|||||||...	-3.73948	|||||||...	0.58141	|||||||.....
415	0	-1.78567	||.....	-0.79495	||.....	0.92572	|||||||...
416	1	11.46233	|||||||..	4.49750	|||||||...	0.46074	|||||||.....
417	1	11.46233	|||||||..	4.49750	|||||||...	0.46074	|||||||.....
418	0	-9.64124	|||||||...	-3.73948	|||||||...	0.58141	|||||||.....
419	1	11.46233	|||||||..	4.49750	|||||||...	0.46074	|||||||.....
420	1	11.46233	|||||||..	4.49750	|||||||...	0.46074	|||||||.....
421	0	-9.64124	|||||||...	-3.73948	|||||||...	0.58141	|||||||.....
422	0	-1.78567	||.....	-0.79495	||.....	0.92572	|||||||...
423	1	11.46233	|||||||..	4.49750	|||||||...	0.46074	|||||||.....
424	1	11.46233	|||||||..	4.49750	|||||||...	0.46074	|||||||.....
425	1	11.46233	|||||||..	4.49750	|||||||...	0.46074	|||||||.....
426*	0	-13.00597	|||||||...	-4.34811	|||||||...	0.46074	|||||||.....
427*	0	-13.00597	|||||||...	-4.34811	|||||||...	0.46074	|||||||.....
428	1	11.46233	|||||||..	4.49750	|||||||...	0.46074	|||||||.....
429	0	-1.78567	||.....	-0.79495	||.....	0.92572	|||||||...
430	0	-1.78567	||.....	-0.79495	||.....	0.92572	|||||||...
431*	0	-13.00597	|||||||...	-4.34811	|||||||...	0.46074	|||||||.....
432	0	-9.64124	|||||||...	-3.73948	|||||||...	0.58141	|||||||.....

NCSS 2020, v20.0.15/10/2023 10:10:08 PM 14

Logistic Regression Report

Dataset ...\\msexport460.NCSS
Y (Ref Value) validvote(0)
Frequency commonweight

Residual Report (Continued)

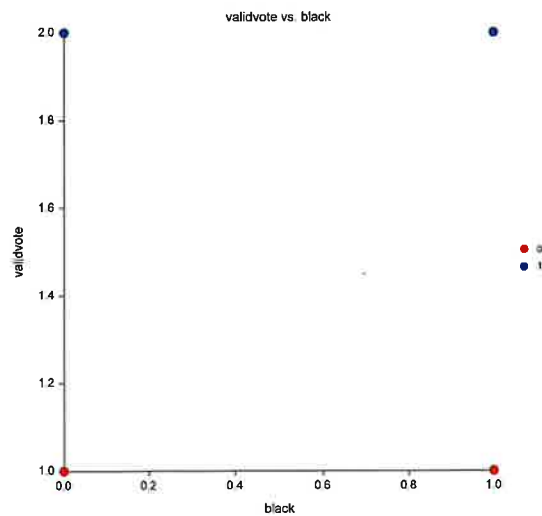
Row	Actual validvote	Pearson Residual	Deviance Residual	Maximum Hat Diagonal
433	0	-9.64124	-3.73948	0.58141
434*	0	-13.00597	-4.34811	0.46074
435*	0	-13.00597	-4.34811	0.46074
436	0	-9.64124	-3.73948	0.58141

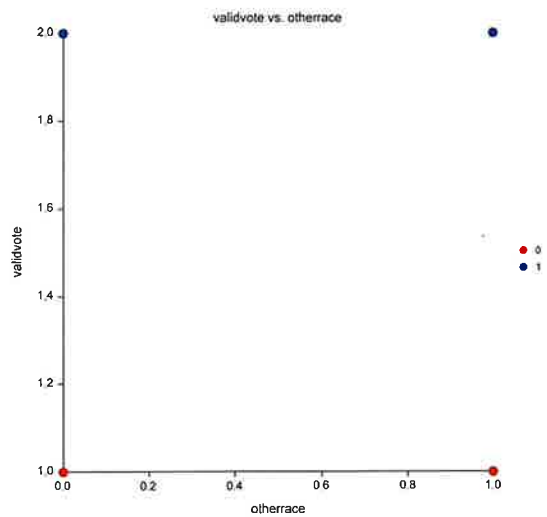
437	0	-9.64124	|||||||....	-3.73948	|||||||....	0.58141	|||||||....
438	0	-1.78567	||.....	-0.79495	||.....	0.92572	|||||||....
439*	0	-13.00597	|||||||....	-4.34811	|||||||....	0.46074	|||||||....
440*	0	-13.00597	|||||||....	-4.34811	|||||||....	0.46074	|||||||....
441	0	-9.64124	|||||||....	-3.73948	|||||||....	0.58141	|||||||....
442*	0	-13.00597	|||||||....	-4.34811	|||||||....	0.46074	|||||||....
443	0	-9.64124	|||||||....	-3.73948	|||||||....	0.58141	|||||||....
444*	0	-13.00597	|||||||....	-4.34811	|||||||....	0.46074	|||||||....
445	0	-9.64124	|||||||....	-3.73948	|||||||....	0.58141	|||||||....
446*	0	-13.00597	|||||||....	-4.34811	|||||||....	0.46074	|||||||....
447*	1	11.15826	|||||||....	3.86756	|||||||....	0.58141	|||||||....
448*	1	11.15826	|||||||....	3.86756	|||||||....	0.58141	|||||||....
449*	1	11.15826	|||||||....	3.86756	|||||||....	0.58141	|||||||....
450*	0	-13.00597	|||||||....	-4.34811	|||||||....	0.46074	|||||||....
451	1	11.46233	|||||||....	4.49750	|||||||....	0.46074	|||||||....
452	1	11.46233	|||||||....	4.49750	|||||||....	0.46074	|||||||....
453	0	-9.64124	|||||||....	-3.73948	|||||||....	0.58141	|||||||....
454*	0	-13.00597	|||||||....	-4.34811	|||||||....	0.46074	|||||||....
455	0	-9.64124	|||||||....	-3.73948	|||||||....	0.58141	|||||||....
456	0	-9.64124	|||||||....	-3.73948	|||||||....	0.58141	|||||||....
457	0	-9.64124	|||||||....	-3.73948	|||||||....	0.58141	|||||||....
458*	0	-13.00597	|||||||....	-4.34811	|||||||....	0.46074	|||||||....
459	1	11.46233	|||||||....	4.49750	|||||||....	0.46074	|||||||....
460	0	-9.64124	|||||||....	-3.73948	|||||||....	0.58141	|||||||....

NCSS 2020, v20.0 15/10/2023 10:10:08 PM 15

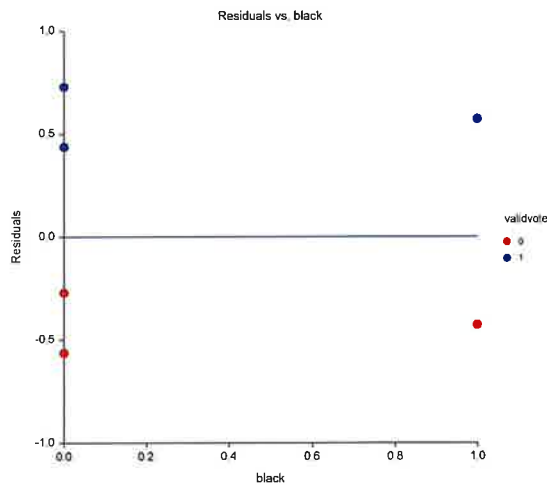
Logistic Regression Report

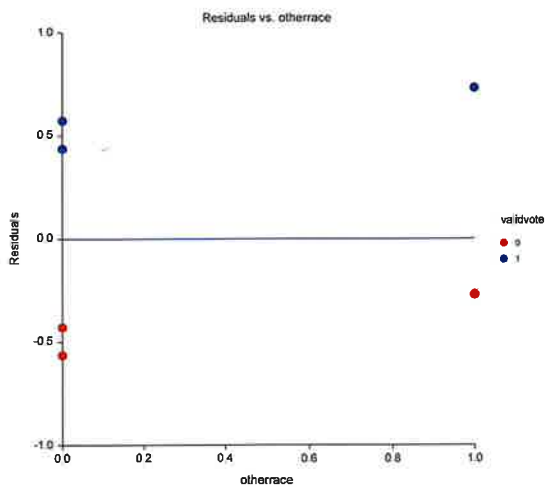
Dataset ...\\msexport460.NCSS
Y (Ref Value) validvote(0)
Frequency commonweight

Y vs X's Plots



Simple Residuals vs X's Plots





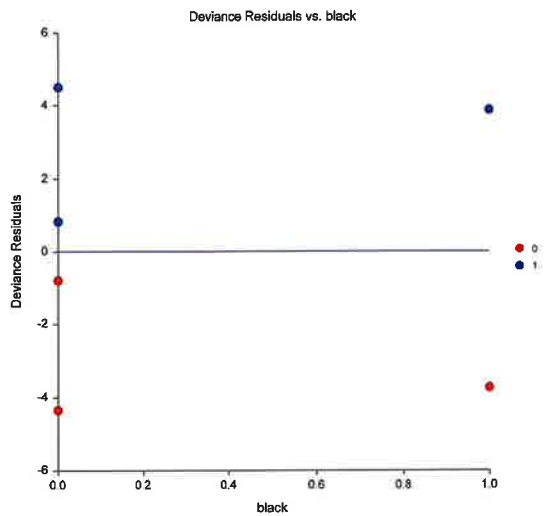
NCSS 2020, v20.0.1

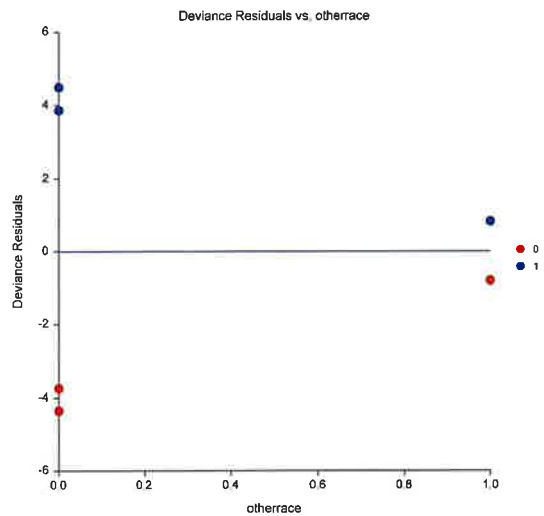
5/10/2023 10:10:08 PM 16

Logistic Regression Report

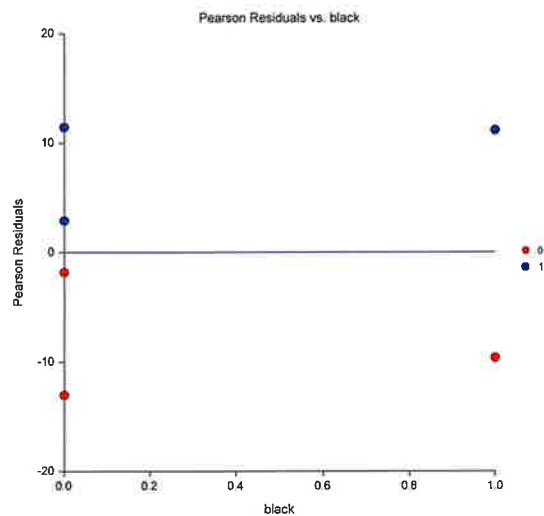
Dataset ...\\msexport460.NCSS
Y (Ref Value) validvote(0)
Frequency commonweight

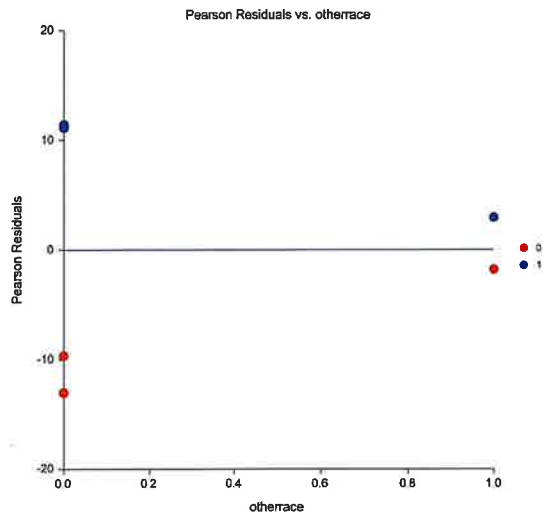
Deviance Residuals vs X's Plots





Pearson Residuals vs X's Plots





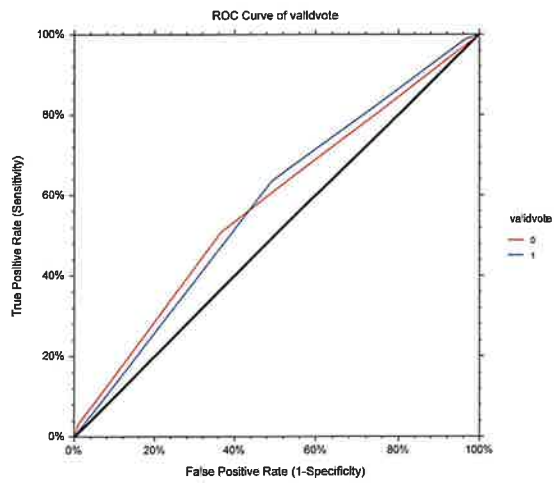
NCSS 2020, v20.0.1

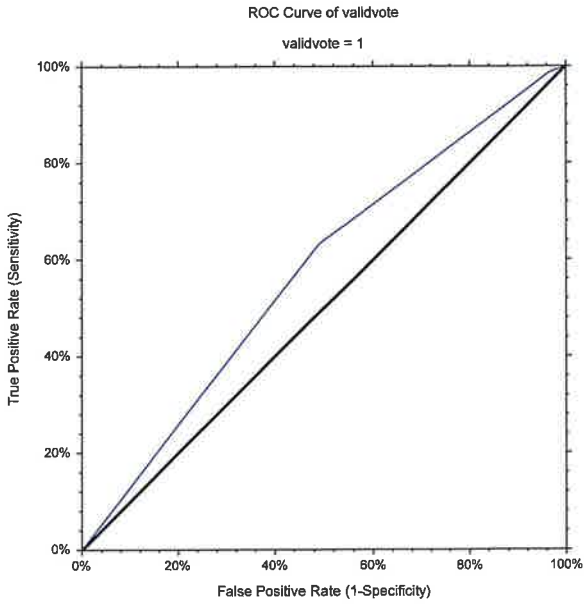
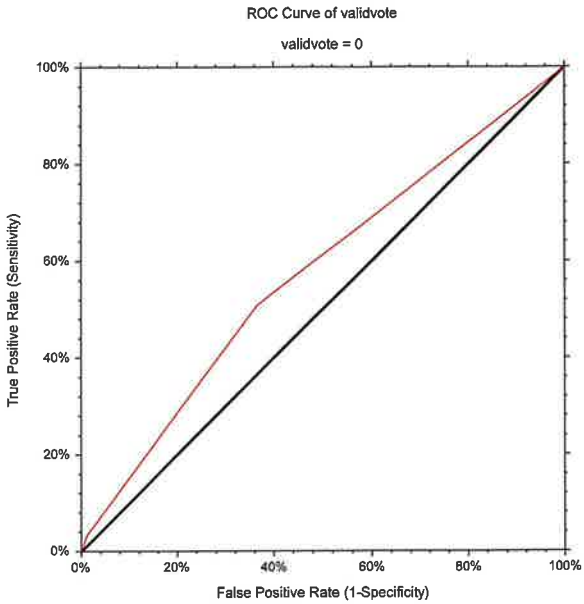
5/10/2023 10:10:08 PM 17

Logistic Regression Report

Dataset ...\\msexport460.NCSS
Y (Ref Value) validvote(0)
Frequency commonweight

ROC Curves (Combined and Separate)



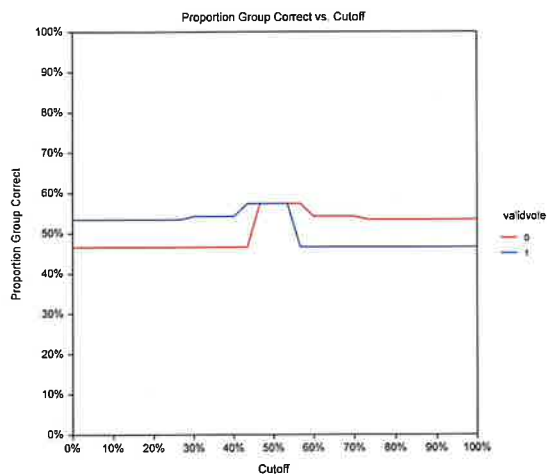


NCSS 2020, v20.0.1

5/10/2023 10:10:08 PM 18

Logistic Regression Report

Dataset ...\\msexport460.NCSS
 Y (Ref Value) validvote(0)
 Frequency commonweight

Prob Correct vs Cutoff Plot**Procedure Input Settings**

Autosave Inactive

Variables, Model Tab

-- Variables -----

Y:	validvote
Reference Value:	0
Numeric X's:	black, otherrace
Categorical X's:	<Empty>
Frequencies:	commonweight
Validation Filter:	<Empty>

-- Regression Model -----

Terms:	1-Way
Remove Intercept	Unchecked

.. Prior Y-Value Probabilities (Changes Intercept and Predicted Values)

Priors:	Equal across Y Values
---------	-----------------------

Subset Selection Tab

-- Select the Best Subset from the X's -----

Search for the Best Subset from the X's Unchecked

Iteration Tab

-- Iteration Options -----

Maximum Iterations: 20
Iteration Termination: 0.000001

NCSS 2020, v20.0.1

5/10/2023 10:10:08 PM 19

Logistic Regression Report

Dataset ... \msexport460.NCSS
Y (Ref Value) validvote(0)
Frequency commonweight

Procedure Input Settings (Continued)

Reports Tab

-- Select Reports -----

-- Summaries

Run Summary Checked
Y Variable Summary Checked

-- Subset Selection

Subset Summary Checked
Subset Detail Checked

-- Estimation

Coefficient Significance Tests Checked
Coefficient Confidence Limits Checked
Odds Ratios Checked
Estimated Model (Reading Form) Unchecked
Estimated Model (Transformation Form) Unchecked

-- Goodness-of-Fit

Analysis of Deviance Checked
Log-Likelihood and R² Checked

-- Classification

Classification Matrix Checked
Validation Matrix Checked
ROC Report Checked

-- Row-by-Row Lists

Row Classification Report: None
Row Classification Probs Report: None
Simple Residuals Report: None

Residuals	Checked
DfBetas	Unchecked
Influence Diagnostics	Unchecked
Residual Diagnostics	Unchecked

Report Options Tab

-- Confidence Levels -----

Confidence Level:	95
-------------------	----

-- Variable and Value Labels -----

Variable Names:	Names
Value Labels:	Data Values
Stagger label and output if label length is ≥	15

NCSS 2020, v20.0.1

5/10/2023 10:10:08 PM 20

Logistic Regression Report

Dataset	...\\msexport460.NCSS
Y (Ref Value)	validvote(0)
Frequency	commonweight

Procedure Input Settings (Continued)**Report Options Tab (Continued)**

-- Decimal Places -----

Precision:	Single
Probability:	5
Beta (Coefficients):	5
SE(Beta):	5
Z:	3
Log Likelihood:	5
Odds Ratio:	5
DFBeta:	5
Coefficients in Reading Form Model:	2

Plots Tab

-- Select Plots -----

Y vs X	Checked
ROC Curves (Combined)	Checked
ROC Curve (Separate)	Checked
Residuals vs X	Checked
Skip Reference Value	Checked
Deviance Residuals vs X	Checked
Pearson Residuals vs X	Checked
Pr(Correct) vs Cutoff	Checked

-- ROC Curves and Prob(Correct) vs Cutoff Plot Options -----

Number Cutoffs:	29
-----------------	----

Storage Tab

-- Data Storage Options -----

Storage Option: Do not store data

Appendix B. NCSS Logistic Regression Results when the correct weights are used.

NCSS 12.0.4

5/17/2023 1:26:51 PM 1

Logistic Regression Report

Dataset ... \NCSSmsexport.NCSS
 Y (Ref Value) validvote(0)
 Frequency commonpostweight

Run Summary

Item	Value	Item	Value
Y Variable	validvote	Rows Processed	460
Reference Value	0	Rows Used	349
Number of Y-Values	2	Rows for Validation	0
Frequency Variable	commonpostweight	Rows X's Missing	0
Numeric X Variables	2	Rows Freq Miss. or 0	111
Categorical X Variables	0	Rows Prediction Only	0
Final Log Likelihood	-288.15982	Unique Rows (Y and X's)	6
Model R ²	0.94973	Sum of Frequencies	419.122537315027
Actual Convergence	4.048361E-09	Likelihood Iterations	4
Target Convergence	1E-06	Maximum Iterations	20
Model D.F.	3	Completion Status	Normal Completion
Priors	Equal		

Y Variable Summary

Y	Count	Unique Rows (Y and X's)	Y Proportion	Y Prior	R ² (Y vs Pred. Probability)	Percent Correctly Classified
validvote						
0	204.557067111209	3	0.48806	0.50000	0.01049	48.550
1	214.565470203818	3	0.51194	0.50000	0.01049	59.957
Total	419.122537315027	6				54.390

Coefficient Significance Tests

Independent Variable	Regression Coefficient b(i)	Standard Error Sb(i)	Wald Z-Value H0: $\beta=0$	Wald P-Value	Odds Ratio Exp(b(i))
Intercept	0.15301	0.08790	1.741	0.08171	1.16534
black	-0.30844	0.19993	-1.543	0.12289	0.73459
otherrace	-1.19123	0.78367	-1.520	0.12849	0.30385

Coefficient Confidence Intervals

Independent Variable	Regression Coefficient b(i)	Standard Error Sb(i)	Lower 95% Confidence Limit	Upper 95% Confidence Limit	Odds Ratio Exp(b(i))
Intercept	0.15301	0.08790	-0.01926	0.32529	1.16534
black	-0.30844	0.19993	-0.70030	0.08341	0.73459
otherrace	-1.19123	0.78367	-2.72719	0.34473	0.30385

NCSS 12.0.4

5/17/2023 1:26:51 PM 2

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
 Y (Ref Value) validvote(0)
 Frequency commonpostweight

Odds Ratios

Independent Variable	Regression Coefficient b(i)	Odds Ratio Exp(b(i))	Lower 95% Confidence Limit	Upper 95% Confidence Limit
Intercept	0.15301	1.16534	0.98093	1.38443
black	-0.30844	0.73459	0.49644	1.08699
otherrace	-1.19123	0.30385	0.06540	1.41161

Estimated Logistic Regression Model(s) in Reading Form

Model for Logit(validvote) = XB when validvote = 1
 0.15 - 0.31 * black - 1.19 * otherrace

Estimated Logistic Regression Model(s) in Transformation Form

Model for Logit(validvote) = XB when validvote = 1

0.15301475991198 -0.308441217146693*black -1.1912307058887*otherrace

Each model estimates XB (where $\text{Logit}(Y) = XB$) for a specific Y outcome. To calculate the Y-value probabilities when there are only 2 outcomes, transform the logit using $\text{Prob}(Y = \text{outcome}) = 1/(1+\text{Exp}(-XB))$ or $\text{Prob}(Y \neq \text{outcome}) = \text{Exp}(-XB)/(1+\text{Exp}(-XB))$. For the calculation formula to use when there are more than 2 outcomes, see the help documentation.

Analysis of Deviance

Term	DF	Deviance	Increase From Model Deviance (Chi²)	P-Value
Omitted				

All	2	580.78819	4.46856	0.10707
black	1	578.70605	2.38642	0.12239
otherrace	1	578.94312	2.62349	0.10529
None(Model)	2	576.31963		

The Prob Level is for testing the significance of that term after considering all other terms.

Log Likelihood & R²

Term(s)	DF	Log Likelihood	R ² of Remaining Term(s)	Reduction From Model R ²	Reduction From Saturated R ²
Omitted					
All	1	-290.39410	0.00000		
black	1	-289.35303	0.44253	0.50720	0.55747
otherrace	1	-289.47156	0.39215	0.55759	0.60785
None(Model)	2	-288.15982	0.94973	0.00000	0.05027
None(Saturated)	6	-288.04156	1.00000		0.00000

NCSS 12.0.4

5/17/2023 1:26:51 PM 3

Logistic Regression Report

Dataset ... \NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Classification Table

Actual	Estimated		Total
	0	1	
0	99.31236	105.2447	204.5571
1	85.91865	128.6468	214.5655
Total	185.231	233.8915	419.1225

Percent Correctly classified = 54.4%

Logistic Regression Report

Dataset ... \NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Residual Report

Row	Actual validvote	Pearson Residual	Deviance Residual	Maximum Hat Diagonal
1	1	10.39601	2.36709	0.44911
2	1	10.39601	2.36709	0.44911
3*	1	9.76123	2.06318	0.57746
4*	0	-11.22260	-2.33898	0.44911
5	1	10.39601	2.36709	0.44911

6	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
7*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
8	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
9	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
10	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
11	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
12	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
13	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
14*	1	2.50368	||	0.40136	||	0.96226	|||||
15*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
16*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
17*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
18	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
19	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
20*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
21	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
22*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
23	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
24	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
25*	1	2.50368	||	0.40136	||	0.96226	|||||
26	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
27*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
28	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
29*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
30*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
31	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
32	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
33	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
34*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
35*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
36*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
37	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
38	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
39*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
40*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
41	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
42	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
43*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
44	0	-1.48982	||	-0.39661	||	0.96226	|||||
45	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
46*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
47*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
48	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
49	1	10.39601	|||||	2.36709	|||||	0.44911	|||||

NCSS 12.0.4

5/17/2023 1:26:51 PM 6

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Residual Report (Continued)

Actual Pearson Deviance Maximum

Row	validvote	Residual	Residual	Hat Diagonal
50	1	10.39601	2.36709	0.44911
51	1	10.39601	2.36709	0.44911
52*	0	-11.22260	-2.33898	0.44911
53	1	10.39601	2.36709	0.44911
54	0	-9.03138	-2.03870	0.57746
55*	0	-11.22260	-2.33898	0.44911
56	1	10.39601	2.36709	0.44911
57	1	10.39601	2.36709	0.44911
58*	1	9.76123	2.06318	0.57746
59	1	10.39601	2.36709	0.44911
60	1	10.39601	2.36709	0.44911
61*	1	2.50368	0.40136	0.96226
62*	0	-11.22260	-2.33898	0.44911
63	1	10.39601	2.36709	0.44911
64	0	-9.03138	-2.03870	0.57746
65*	0	-11.22260	-2.33898	0.44911
66	1	10.39601	2.36709	0.44911
67	1	10.39601	2.36709	0.44911
68	1	10.39601	2.36709	0.44911
69	1	10.39601	2.36709	0.44911
70*	0	-11.22260	-2.33898	0.44911
71*	1	9.76123	2.06318	0.57746
72	1	10.39601	2.36709	0.44911
73*	0	-11.22260	-2.33898	0.44911
74*	0	-11.22260	-2.33898	0.44911
75	1	10.39601	2.36709	0.44911
76*	0	-11.22260	-2.33898	0.44911
77	1	10.39601	2.36709	0.44911
78	1	10.39601	2.36709	0.44911
79	1	10.39601	2.36709	0.44911
80	1	10.39601	2.36709	0.44911
81	0	-9.03138	-2.03870	0.57746
82*	1	9.76123	2.06318	0.57746
83	1	10.39601	2.36709	0.44911
84	0	-9.03138	-2.03870	0.57746
85*	1	9.76123	2.06318	0.57746
86	0	-1.48982	-0.39661	0.96226
87	1	10.39601	2.36709	0.44911
88*	0	-11.22260	-2.33898	0.44911
89	1	10.39601	2.36709	0.44911
90	1	10.39601	2.36709	0.44911
91	1	10.39601	2.36709	0.44911
92	1	10.39601	2.36709	0.44911
93*	0	-11.22260	-2.33898	0.44911
94	1	10.39601	2.36709	0.44911
95	1	10.39601	2.36709	0.44911
96*	1	9.76123	2.06318	0.57746
97	1	10.39601	2.36709	0.44911
98	1	10.39601	2.36709	0.44911

NCSS 12.0.4

5/17/2023 1:26:51 PM 7

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS

Y (Ref Value) validvote(0)
Frequency commonpostweight

Residual Report (Continued)

Row	Actual validvote	Pearson Residual	Deviance Residual	Maximum Hat Diagonal
99*	0	-11.22260	-2.33898	0.44911
100*	1	9.76123	2.06318	0.57746
101*	1	9.76123	2.06318	0.57746
102	0	-9.03138	-2.03870	0.57746
103*	0	-11.22260	-2.33898	0.44911
104*	1	9.76123	2.06318	0.57746
105*	0	-11.22260	-2.33898	0.44911
106*	1	9.76123	2.06318	0.57746
107*	0	-11.22260	-2.33898	0.44911
108*	1	9.76123	2.06318	0.57746
109	0	-9.03138	-2.03870	0.57746
110*	1	9.76123	2.06318	0.57746
111*	1	9.76123	2.06318	0.57746
112*	1	9.76123	2.06318	0.57746
113	1	10.39601	2.36709	0.44911
114	0	-9.03138	-2.03870	0.57746
115*	0	-11.22260	-2.33898	0.44911
116*	1	9.76123	2.06318	0.57746
117	1	10.39601	2.36709	0.44911
118	1	10.39601	2.36709	0.44911
119	1	10.39601	2.36709	0.44911
120	0	-9.03138	-2.03870	0.57746
121*	0	-11.22260	-2.33898	0.44911
122*	0	-11.22260	-2.33898	0.44911
123	1	10.39601	2.36709	0.44911
124	1	10.39601	2.36709	0.44911
125	1	10.39601	2.36709	0.44911
126*	0	-11.22260	-2.33898	0.44911
127	1	10.39601	2.36709	0.44911
128	1	10.39601	2.36709	0.44911
129*	0	-11.22260	-2.33898	0.44911
130	1	10.39601	2.36709	0.44911
131*	0	-11.22260	-2.33898	0.44911
132*	0	-11.22260	-2.33898	0.44911
133	1	10.39601	2.36709	0.44911
134	1	10.39601	2.36709	0.44911
135*	0	-11.22260	-2.33898	0.44911
136*	0	-11.22260	-2.33898	0.44911
137*	0	-11.22260	-2.33898	0.44911
138*	0	-11.22260	-2.33898	0.44911
139*	1	9.76123	2.06318	0.57746
140	0	-9.03138	-2.03870	0.57746
141	1	10.39601	2.36709	0.44911
142	0	-9.03138	-2.03870	0.57746
143*	1	9.76123	2.06318	0.57746
144*	1	9.76123	2.06318	0.57746
145*	0	-11.22260	-2.33898	0.44911
146	0	-1.48982	-0.39661	0.96226
147*	1	9.76123	2.06318	0.57746

NCSS 12.0.4

5/17/2023 1:26:51 PM 8

Logistic Regression Report

Dataset ...\\NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Residual Report (Continued)

Row	Actual validvote	Pearson Residual	Deviance Residual	Maximum Hat Diagonal
148*	1	9.76123	2.06318	0.57746
149	1	10.39601	2.36709	0.44911
150*	1	9.76123	2.06318	0.57746
151*	1	2.50368	0.40136	0.96226
152	0	-9.03138	-2.03870	0.57746
153*	1	9.76123	2.06318	0.57746
154	1	10.39601	2.36709	0.44911
155	0	-9.03138	-2.03870	0.57746
156*	0	-11.22260	-2.33898	0.44911
157*	1	9.76123	2.06318	0.57746
158	1	10.39601	2.36709	0.44911
159*	0	-11.22260	-2.33898	0.44911
160	0	-9.03138	-2.03870	0.57746
161*	0	-11.22260	-2.33898	0.44911
162*	0	-11.22260	-2.33898	0.44911
163*	0	-11.22260	-2.33898	0.44911
164	1	10.39601	2.36709	0.44911
165	0	-9.03138	-2.03870	0.57746
166	1	10.39601	2.36709	0.44911
167	0	-9.03138	-2.03870	0.57746
168	1	10.39601	2.36709	0.44911
169	1	10.39601	2.36709	0.44911
170	0	-9.03138	-2.03870	0.57746
171	1	10.39601	2.36709	0.44911
172	1	10.39601	2.36709	0.44911
173*	0	-11.22260	-2.33898	0.44911
174*	0	-11.22260	-2.33898	0.44911
175	0	-9.03138	-2.03870	0.57746
176*	0	-11.22260	-2.33898	0.44911
177*	0	-11.22260	-2.33898	0.44911
178	1	10.39601	2.36709	0.44911
179	0	-9.03138	-2.03870	0.57746
180*	0	-11.22260	-2.33898	0.44911
181*	1	9.76123	2.06318	0.57746
182	0	-9.03138	-2.03870	0.57746
183*	0	-11.22260	-2.33898	0.44911
184*	1	9.76123	2.06318	0.57746
185	0	-9.03138	-2.03870	0.57746
186	1	10.39601	2.36709	0.44911
187	1	10.39601	2.36709	0.44911
188	1	10.39601	2.36709	0.44911
189	1	10.39601	2.36709	0.44911
190	1	10.39601	2.36709	0.44911

191*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
192*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
193	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
194	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
195	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
196*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||

NCSS 12.0.4

5/17/2023 1:26:51 PM 9

Logistic Regression Report

Dataset ...\\NCSSmsexport.NCSS
 Y (Ref Value) validvote(0)
 Frequency commonpostweight

Residual Report (Continued)

Row	Actual validvote	Pearson Residual	Deviance Residual	Maximum Hat Diagonal
197	0	-9.03138	-2.03870	0.57746
198	0	-9.03138	-2.03870	0.57746
199	1	10.39601	2.36709	0.44911
200	1	10.39601	2.36709	0.44911
201*	0	-11.22260	-2.33898	0.44911
202*	0	-11.22260	-2.33898	0.44911
203	0	-9.03138	-2.03870	0.57746
204	1	10.39601	2.36709	0.44911
205*	1	9.76123	2.06318	0.57746
206	0	-9.03138	-2.03870	0.57746
207*	0	-11.22260	-2.33898	0.44911
208	0	-9.03138	-2.03870	0.57746
209*	0	-11.22260	-2.33898	0.44911
210*	0	-11.22260	-2.33898	0.44911
211*	0	-11.22260	-2.33898	0.44911
212*	0	-11.22260	-2.33898	0.44911
213*	0	-11.22260	-2.33898	0.44911
214	1	10.39601	2.36709	0.44911
215	1	10.39601	2.36709	0.44911
216	1	10.39601	2.36709	0.44911
217	1	10.39601	2.36709	0.44911
218*	0	-11.22260	-2.33898	0.44911
219	1	10.39601	2.36709	0.44911
220*	1	9.76123	2.06318	0.57746
221	1	10.39601	2.36709	0.44911
222*	0	-11.22260	-2.33898	0.44911
223	0	-9.03138	-2.03870	0.57746
224*	0	-11.22260	-2.33898	0.44911
225*	1	2.50368	0.40136	0.96226
226	1	10.39601	2.36709	0.44911
227	1	10.39601	2.36709	0.44911
228*	0	-11.22260	-2.33898	0.44911
229	1	10.39601	2.36709	0.44911
230	1	10.39601	2.36709	0.44911
231*	1	9.76123	2.06318	0.57746
232	0	-1.48982	-0.39661	0.96226
233	1	10.39601	2.36709	0.44911

234	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
235*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
236	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
237*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
238*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
239*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
240	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
241	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
242*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
243*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
244*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
245	1	10.39601	|||||	2.36709	|||||	0.44911	|||||

NCSS 12.0.45/17/2023 1:26:51 PM 10

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Residual Report (Continued)

Row	Actual validvote	Pearson Residual	Deviance Residual	Maximum Hat Diagonal
246	1	10.39601	2.36709	0.44911
247	0	-9.03138	-2.03870	0.57746
248	1	10.39601	2.36709	0.44911
249	1	10.39601	2.36709	0.44911
250	1	10.39601	2.36709	0.44911
251	1	10.39601	2.36709	0.44911
252*	0	-11.22260	-2.33898	0.44911
253	0	-9.03138	-2.03870	0.57746
254	0	-9.03138	-2.03870	0.57746
255*	0	-11.22260	-2.33898	0.44911
256	1	10.39601	2.36709	0.44911
257	1	10.39601	2.36709	0.44911
258*	1	9.76123	2.06318	0.57746
259	1	10.39601	2.36709	0.44911
260*	0	-11.22260	-2.33898	0.44911
261*	0	-11.22260	-2.33898	0.44911
262	1	10.39601	2.36709	0.44911
263*	1	9.76123	2.06318	0.57746
264*	0	-11.22260	-2.33898	0.44911
265*	0	-11.22260	-2.33898	0.44911
266	0	-9.03138	-2.03870	0.57746
267	1	10.39601	2.36709	0.44911
268	1	10.39601	2.36709	0.44911
269*	0	-11.22260	-2.33898	0.44911
270*	0	-11.22260	-2.33898	0.44911
271	1	10.39601	2.36709	0.44911
272*	1	9.76123	2.06318	0.57746
273*	1	9.76123	2.06318	0.57746
274	1	10.39601	2.36709	0.44911
275*	0	-11.22260	-2.33898	0.44911
276	1	10.39601	2.36709	0.44911

277*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
278	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
279*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
280*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
281	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
282*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
283	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
284*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
285	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
286	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
287	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
288*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
289*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
290	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
291	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
292	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
293	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
294	1	10.39601	|||||	2.36709	|||||	0.44911	|||||

NCSS 12.0.4

5/17/2023 1:26:51 PM 11

Logistic Regression Report

Dataset ... \NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Residual Report (Continued)

Row	Actual validvote	Pearson Residual	Deviance Residual	Maximum Hat Diagonal
295	0	-9.03138	-2.03870	0.57746
296*	0	-11.22260	-2.33898	0.44911
297*	1	9.76123	2.06318	0.57746
298	0	-9.03138	-2.03870	0.57746
299*	0	-11.22260	-2.33898	0.44911
300*	0	-11.22260	-2.33898	0.44911
301*	0	-11.22260	-2.33898	0.44911
302*	0	-11.22260	-2.33898	0.44911
303	0	-9.03138	-2.03870	0.57746
304	0	-9.03138	-2.03870	0.57746
305	0	-9.03138	-2.03870	0.57746
306*	0	-11.22260	-2.33898	0.44911
307	0	-9.03138	-2.03870	0.57746
308*	0	-11.22260	-2.33898	0.44911
309	0	-9.03138	-2.03870	0.57746
310	1	10.39601	2.36709	0.44911
311*	1	9.76123	2.06318	0.57746
312	0	-9.03138	-2.03870	0.57746
313	0	-9.03138	-2.03870	0.57746
314	1	10.39601	2.36709	0.44911
315	0	-9.03138	-2.03870	0.57746
316*	0	-11.22260	-2.33898	0.44911
317*	1	9.76123	2.06318	0.57746
318*	1	9.76123	2.06318	0.57746

319	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
320*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
321	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
322	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
323*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
324*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
325*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
326*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
327*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
328*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
329	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
330	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
331*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
332	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
333	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
334*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
335*	1	2.50368	|||	0.40136	|||	0.96226	|||||
336*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
337	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
338	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
339	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
340	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
341*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
342	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
343	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||

NCSS 12.0.45/17/2023 1:26:51 PM 12

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Residual Report (Continued)

Row	Actual validvote	Pearson Residual	Deviance Residual	Maximum Hat Diagonal
344*	0	-11.22260	-2.33898	0.44911
345	0	-9.03138	-2.03870	0.57746
346*	0	-11.22260	-2.33898	0.44911
347	1	10.39601	2.36709	0.44911
348*	1	2.50368	0.40136	0.96226
349	1	10.39601	2.36709	0.44911
350*	0	-11.22260	-2.33898	0.44911
351	0	-9.03138	-2.03870	0.57746
352*	1	9.76123	2.06318	0.57746
353*	0	-11.22260	-2.33898	0.44911
354*	1	9.76123	2.06318	0.57746
355	0	-9.03138	-2.03870	0.57746
356*	0	-11.22260	-2.33898	0.44911
357	1	10.39601	2.36709	0.44911
358	0	-9.03138	-2.03870	0.57746
359*	1	9.76123	2.06318	0.57746
360*	1	9.76123	2.06318	0.57746
361*	1	9.76123	2.06318	0.57746

362*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
363*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
364	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
365*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
366	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
367	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
368*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
369	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
370*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
371*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
372*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
373*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
374	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
375*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
376*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
377*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
378*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
379	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
380	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
381	0	-1.48982	|||||	-0.39661	|||||	0.96226	|||||
382*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
383*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
384*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
385*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
386	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
387	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
388	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
389*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
390	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
391*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
392*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||

NCSS 12.0.4

5/17/2023 1:26:51 PM 13

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Residual Report (Continued)

Row	Actual validvote	Pearson Residual	Deviance Residual	Maximum Hat Diagonal
393	1	10.39601	2.36709	0.44911
394*	1	9.76123	2.06318	0.57746
395	0	-9.03138	-2.03870	0.57746
396	1	10.39601	2.36709	0.44911
397*	1	9.76123	2.06318	0.57746
398*	0	-11.22260	-2.33898	0.44911
399	0	-9.03138	-2.03870	0.57746
400	1	10.39601	2.36709	0.44911
401	0	-9.03138	-2.03870	0.57746
402	0	-1.48982	-0.39661	0.96226
403	0	-9.03138	-2.03870	0.57746
404*	0	-11.22260	-2.33898	0.44911

405*	1	2.50368	|||||	0.40136	||	0.96226	|||||
406*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
407	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
408*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
409	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
410*	1	9.76123	|||||	2.06318	|||||	0.57746	|||||
411	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
412	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
413*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
414	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
415	0	-1.48982	|||||	-0.39661	||	0.96226	|||||
416	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
417	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
418	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
419	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
420	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
421	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
422	0	-1.48982	|||||	-0.39661	||	0.96226	|||||
423	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
424	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
425	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
426*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
427*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
428	1	10.39601	|||||	2.36709	|||||	0.44911	|||||
429	0	-1.48982	|||||	-0.39661	||	0.96226	|||||
430	0	-1.48982	|||||	-0.39661	||	0.96226	|||||
431*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
432	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
433	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
434*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
435*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
436	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
437	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||
438	0	-1.48982	|||||	-0.39661	||	0.96226	|||||
439*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
440*	0	-11.22260	|||||	-2.33898	|||||	0.44911	|||||
441	0	-9.03138	|||||	-2.03870	|||||	0.57746	|||||

NCSS 12.0.4

5/17/2023 1:26:51 PM 14

Logistic Regression Report

Dataset ... \NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Residual Report (Continued)

Row	Actual validvote	Pearson Residual	Deviance Residual	Maximum Hat Diagonal
442*	0	-11.22260	-2.33898	0.44911
443	0	-9.03138	-2.03870	0.57746
444*	0	-11.22260	-2.33898	0.44911
445	0	-9.03138	-2.03870	0.57746
446*	0	-11.22260	-2.33898	0.44911
447*	1	9.76123	2.06318	0.57746

448*	1	9.76123	|||||||..	2.06318	|||||||..	0.57746	|||||||.....
449*	1	9.76123	|||||||..	2.06318	|||||||..	0.57746	|||||||.....
450*	0	-11.22260	|||||||..	-2.33898	|||||||..	0.44911	|||||||.....
451	1	10.39601	|||||||..	2.36709	|||||||..	0.44911	|||||||.....
452	1	10.39601	|||||||..	2.36709	|||||||..	0.44911	|||||||.....
453	0	-9.03138	|||||||..	-2.03870	|||||||..	0.57746	|||||||.....
454*	0	-11.22260	|||||||..	-2.33898	|||||||..	0.44911	|||||||.....
455	0	-9.03138	|||||||..	-2.03870	|||||||..	0.57746	|||||||.....
456	0	-9.03138	|||||||..	-2.03870	|||||||..	0.57746	|||||||.....
457	0	-9.03138	|||||||..	-2.03870	|||||||..	0.57746	|||||||.....
458*	0	-11.22260	|||||||..	-2.33898	|||||||..	0.44911	|||||||.....
459	1	10.39601	|||||||..	2.36709	|||||||..	0.44911	|||||||.....
460	0	-9.03138	|||||||..	-2.03870	|||||||..	0.57746	|||||||.....

NCSS 12.0.45/17/2023 1:26:51 PM 15

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

DFBetas Report For validvote = 1

Row	Actual validvote	DFBeta Intercept	DFBeta black	DFBeta otherrace
1	1	0.44216	-0.43466	-0.11089
2	1	0.44216	-0.43466	-0.11089
3*	1	-0.54033	0.56461	0.00000
4*	0	-20.08375	19.74307	5.03686
5	1	0.44216	-0.43466	-0.11089
6	1	0.44216	-0.43466	-0.11089
7*	1	-0.54033	0.56461	0.00000
8	1	0.44216	-0.43466	-0.11089
9	1	0.44216	-0.43466	-0.11089
10	1	0.44216	-0.43466	-0.11089
11	1	0.44216	-0.43466	-0.11089
12	1	0.44216	-0.43466	-0.11089
13	1	0.44216	-0.43466	-0.11089
14*	1	-0.22785	0.00000	1.59732
15*	1	-0.54033	0.56461	0.00000
16*	1	-0.54033	0.56461	0.00000
17*	1	-0.54033	0.56461	0.00000
18	1	0.44216	-0.43466	-0.11089
19	1	0.44216	-0.43466	-0.11089
20*	0	-20.08375	19.74307	5.03686
21	1	0.44216	-0.43466	-0.11089
22*	0	-20.08375	19.74307	5.03686
23	0	20.95992	-21.90187	0.00000
24	0	20.95992	-21.90187	0.00000
25*	1	-0.22785	0.00000	1.59732
26	1	0.44216	-0.43466	-0.11089
27*	0	-20.08375	19.74307	5.03686
28	1	0.44216	-0.43466	-0.11089
29*	0	-20.08375	19.74307	5.03686

30*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|
31	1	0.44216	|	-0.43466	|	-0.11089	|
32	1	0.44216	|	-0.43466	|	-0.11089	|
33	1	0.44216	|	-0.43466	|	-0.11089	|
34*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|
35*	1	-0.54033	|	0.56461	|	0.00000	|
36*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|
37	1	0.44216	|	-0.43466	|	-0.11089	|
38	0	20.95992	|||||||	-21.90187	|||||||	0.00000	|
39*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|
40*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|
41	1	0.44216	|	-0.43466	|	-0.11089	|
42	1	0.44216	|	-0.43466	|	-0.11089	|
43*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|
44	0	6.38662	|	0.00000	|	-44.77268	|||||||
45	1	0.44216	|	-0.43466	|	-0.11089	|
46*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|
47*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|
48	1	0.44216	|	-0.43466	|	-0.11089	|
49	1	0.44216	|	-0.43466	|	-0.11089	|

NCSS 12.0.45/17/2023 1:26:51 PM 16

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

DFBetas Report For validvote = 1 (Continued)

Row	Actual validvote	DFBeta Intercept	DFBeta black	DFBeta otherrace
50	1	0.44216	-0.43466	-0.11089
51	1	0.44216	-0.43466	-0.11089
52*	0	-20.08375	19.74307	5.03686
53	1	0.44216	-0.43466	-0.11089
54	0	20.95992	-21.90187	0.00000
55*	0	-20.08375	19.74307	5.03686
56	1	0.44216	-0.43466	-0.11089
57	1	0.44216	-0.43466	-0.11089
58*	1	-0.54033	0.56461	0.00000
59	1	0.44216	-0.43466	-0.11089
60	1	0.44216	-0.43466	-0.11089
61*	1	-0.22785	0.00000	1.59732
62*	0	-20.08375	19.74307	5.03686
63	1	0.44216	-0.43466	-0.11089
64	0	20.95992	-21.90187	0.00000
65*	0	-20.08375	19.74307	5.03686
66	1	0.44216	-0.43466	-0.11089
67	1	0.44216	-0.43466	-0.11089
68	1	0.44216	-0.43466	-0.11089
69	1	0.44216	-0.43466	-0.11089
70*	0	-20.08375	19.74307	5.03686
71*	1	-0.54033	0.56461	0.00000
72	1	0.44216	-0.43466	-0.11089

73*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|
74*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|
75	1	0.44216	|	-0.43466	|	-0.11089	|
76*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|
77	1	0.44216	|	-0.43466	|	-0.11089	|
78	1	0.44216	|	-0.43466	|	-0.11089	|
79	1	0.44216	|	-0.43466	|	-0.11089	|
80	1	0.44216	|	-0.43466	|	-0.11089	|
81	0	20.95992	|||||||	-21.90187	|||||||	0.00000	|
82*	1	-0.54033	|	0.56461	|	0.00000	|
83	1	0.44216	|	-0.43466	|	-0.11089	|
84	0	20.95992	|||||||	-21.90187	|||||||	0.00000	|
85*	1	-0.54033	|	0.56461	|	0.00000	|
86	0	6.38662	|	0.00000	|	-44.77268	|||||||
87	1	0.44216	|	-0.43466	|	-0.11089	|
88*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|
89	1	0.44216	|	-0.43466	|	-0.11089	|
90	1	0.44216	|	-0.43466	|	-0.11089	|
91	1	0.44216	|	-0.43466	|	-0.11089	|
92	1	0.44216	|	-0.43466	|	-0.11089	|
93*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|
94	1	0.44216	|	-0.43466	|	-0.11089	|
95	1	0.44216	|	-0.43466	|	-0.11089	|
96*	1	-0.54033	|	0.56461	|	0.00000	|
97	1	0.44216	|	-0.43466	|	-0.11089	|
98	1	0.44216	|	-0.43466	|	-0.11089	|

NCSS 12.0.4

5/17/2023 1:26:51 PM 17

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

DFBetas Report For validvote = 1 (Continued)

Row	Actual validvote	DFBeta Intercept	DFBeta black	DFBeta otherrace
99*	0	-20.08375	19.74307	5.03686
100*	1	-0.54033	0.56461	0.00000
101*	1	-0.54033	0.56461	0.00000
102	0	20.95992	-21.90187	0.00000
103*	0	-20.08375	19.74307	5.03686
104*	1	-0.54033	0.56461	0.00000
105*	0	-20.08375	19.74307	5.03686
106*	1	-0.54033	0.56461	0.00000
107*	0	-20.08375	19.74307	5.03686
108*	1	-0.54033	0.56461	0.00000
109	0	20.95992	-21.90187	0.00000
110*	1	-0.54033	0.56461	0.00000
111*	1	-0.54033	0.56461	0.00000
112*	1	-0.54033	0.56461	0.00000
113	1	0.44216	-0.43466	-0.11089
114	0	20.95992	-21.90187	0.00000
115*	0	-20.08375	19.74307	5.03686

116*	1	-0.54033	|.....	0.56461	|.....	0.00000	|.....
117	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
118	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
119	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
120	0	20.95992	|||||||	-21.90187	|||||||	0.00000	|.....
121*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
122*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
123	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
124	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
125	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
126*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
127	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
128	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
129*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
130	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
131*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
132*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
133	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
134	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
135*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
136*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
137*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
138*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
139*	1	-0.54033	|.....	0.56461	|.....	0.00000	|.....
140	0	20.95992	|||||||	-21.90187	|||||||	0.00000	|.....
141	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
142	0	20.95992	|||||||	-21.90187	|||||||	0.00000	|.....
143*	1	-0.54033	|.....	0.56461	|.....	0.00000	|.....
144*	1	-0.54033	|.....	0.56461	|.....	0.00000	|.....
145*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
146	0	6.38662	|.....	0.00000	|.....	-44.77268	|||||||
147*	1	-0.54033	|.....	0.56461	|.....	0.00000	|.....

NCSS 12.0.4

5/17/2023 1:26:51 PM 18

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

DFBetas Report For validvote = 1 (Continued)

Row	Actual validvote	DFBeta Intercept	DFBeta black	DFBeta otherrace
148*	1	-0.54033	0.56461	0.00000
149	1	0.44216	-0.43466	-0.11089
150*	1	-0.54033	0.56461	0.00000
151*	1	-0.22785	0.00000	1.59732
152	0	20.95992	-21.90187	0.00000
153*	1	-0.54033	0.56461	0.00000
154	1	0.44216	-0.43466	-0.11089
155	0	20.95992	-21.90187	0.00000
156*	0	-20.08375	19.74307	5.03686
157*	1	-0.54033	0.56461	0.00000
158	1	0.44216	-0.43466	-0.11089

159*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
160	0	20.95992	|||||||	-21.90187	|||||||	0.00000	|.....
161*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
162*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
163*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
164	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
165	0	20.95992	|||||||	-21.90187	|||||||	0.00000	|.....
166	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
167	0	20.95992	|||||||	-21.90187	|||||||	0.00000	|.....
168	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
169	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
170	0	20.95992	|||||||	-21.90187	|||||||	0.00000	|.....
171	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
172	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
173*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
174*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
175	0	20.95992	|||||||	-21.90187	|||||||	0.00000	|.....
176*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
177*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
178	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
179	0	20.95992	|||||||	-21.90187	|||||||	0.00000	|.....
180*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
181*	1	-0.54033	|.....	0.56461	|.....	0.00000	|.....
182	0	20.95992	|||||||	-21.90187	|||||||	0.00000	|.....
183*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
184*	1	-0.54033	|.....	0.56461	|.....	0.00000	|.....
185	0	20.95992	|||||||	-21.90187	|||||||	0.00000	|.....
186	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
187	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
188	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
189	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
190	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
191*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
192*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....
193	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
194	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
195	1	0.44216	|.....	-0.43466	|.....	-0.11089	|.....
196*	0	-20.08375	|||||||	19.74307	|||||||	5.03686	|.....

NCSS 12.0.4

5/17/2023 1:26:51 PM 19

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

DFBetas Report For validvote = 1 (Continued)

Row	Actual validvote	DFBeta Intercept	DFBeta black	DFBeta otherrace
197	0	20.95992	-21.90187	0.00000
198	0	20.95992	-21.90187	0.00000
199	1	0.44216	-0.43466	-0.11089
200	1	0.44216	-0.43466	-0.11089
201*	0	-20.08375	19.74307	5.03686

202*	0	-20.08375	|||||	19.74307	|||||	5.03686	|
203	0	20.95992	|||||	-21.90187	|||||	0.00000	|
204	1	0.44216	|	-0.43466	|	-0.11089	|
205*	1	-0.54033	|	0.56461	|	0.00000	|
206	0	20.95992	|||||	-21.90187	|||||	0.00000	|
207*	0	-20.08375	|||||	19.74307	|||||	5.03686	|
208	0	20.95992	|||||	-21.90187	|||||	0.00000	|
209*	0	-20.08375	|||||	19.74307	|||||	5.03686	|
210*	0	-20.08375	|||||	19.74307	|||||	5.03686	|
211*	0	-20.08375	|||||	19.74307	|||||	5.03686	|
212*	0	-20.08375	|||||	19.74307	|||||	5.03686	|
213*	0	-20.08375	|||||	19.74307	|||||	5.03686	|
214	1	0.44216	|	-0.43466	|	-0.11089	|
215	1	0.44216	|	-0.43466	|	-0.11089	|
216	1	0.44216	|	-0.43466	|	-0.11089	|
217	1	0.44216	|	-0.43466	|	-0.11089	|
218*	0	-20.08375	|||||	19.74307	|||||	5.03686	|
219	1	0.44216	|	-0.43466	|	-0.11089	|
220*	1	-0.54033	|	0.56461	|	0.00000	|
221	1	0.44216	|	-0.43466	|	-0.11089	|
222*	0	-20.08375	|||||	19.74307	|||||	5.03686	|
223	0	20.95992	|||||	-21.90187	|||||	0.00000	|
224*	0	-20.08375	|||||	19.74307	|||||	5.03686	|
225*	1	-0.22785	|	0.00000	|	1.59732	|
226	1	0.44216	|	-0.43466	|	-0.11089	|
227	1	0.44216	|	-0.43466	|	-0.11089	|
228*	0	-20.08375	|||||	19.74307	|||||	5.03686	|
229	1	0.44216	|	-0.43466	|	-0.11089	|
230	1	0.44216	|	-0.43466	|	-0.11089	|
231*	1	-0.54033	|	0.56461	|	0.00000	|
232	0	6.38662	|||	0.00000	|	-44.77268	|||||
233	1	0.44216	|	-0.43466	|	-0.11089	|
234	1	0.44216	|	-0.43466	|	-0.11089	|
235*	1	-0.54033	|	0.56461	|	0.00000	|
236	0	20.95992	|||||	-21.90187	|||||	0.00000	|
237*	0	-20.08375	|||||	19.74307	|||||	5.03686	|
238*	1	-0.54033	|	0.56461	|	0.00000	|
239*	0	-20.08375	|||||	19.74307	|||||	5.03686	|
240	0	20.95992	|||||	-21.90187	|||||	0.00000	|
241	1	0.44216	|	-0.43466	|	-0.11089	|
242*	0	-20.08375	|||||	19.74307	|||||	5.03686	|
243*	0	-20.08375	|||||	19.74307	|||||	5.03686	|
244*	1	-0.54033	|	0.56461	|	0.00000	|
245	1	0.44216	|	-0.43466	|	-0.11089	|

NCSS 12.0.4

5/17/2023 1:26:51 PM 20

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

DFBetas Report For validvote = 1 (Continued)

Row	Actual validvote	DFBeta Intercept	DFBeta black	DFBeta otherrace
246	1	0.44216	-0.43466	-0.11089
247	0	20.95992	-21.90187	0.00000
248	1	0.44216	-0.43466	-0.11089
249	1	0.44216	-0.43466	-0.11089
250	1	0.44216	-0.43466	-0.11089
251	1	0.44216	-0.43466	-0.11089
252*	0	-20.08375	19.74307	5.03686
253	0	20.95992	-21.90187	0.00000
254	0	20.95992	-21.90187	0.00000
255*	0	-20.08375	19.74307	5.03686
256	1	0.44216	-0.43466	-0.11089
257	1	0.44216	-0.43466	-0.11089
258*	1	-0.54033	0.56461	0.00000
259	1	0.44216	-0.43466	-0.11089
260*	0	-20.08375	19.74307	5.03686
261*	0	-20.08375	19.74307	5.03686
262	1	0.44216	-0.43466	-0.11089
263*	1	-0.54033	0.56461	0.00000
264*	0	-20.08375	19.74307	5.03686
265*	0	-20.08375	19.74307	5.03686
266	0	20.95992	-21.90187	0.00000
267	1	0.44216	-0.43466	-0.11089
268	1	0.44216	-0.43466	-0.11089
269*	0	-20.08375	19.74307	5.03686
270*	0	-20.08375	19.74307	5.03686
271	1	0.44216	-0.43466	-0.11089
272*	1	-0.54033	0.56461	0.00000
273*	1	-0.54033	0.56461	0.00000
274	1	0.44216	-0.43466	-0.11089
275*	0	-20.08375	19.74307	5.03686
276	1	0.44216	-0.43466	-0.11089
277*	0	-20.08375	19.74307	5.03686
278	0	20.95992	-21.90187	0.00000
279*	1	-0.54033	0.56461	0.00000
280*	0	-20.08375	19.74307	5.03686
281	0	20.95992	-21.90187	0.00000
282*	1	-0.54033	0.56461	0.00000
283	1	0.44216	-0.43466	-0.11089
284*	1	-0.54033	0.56461	0.00000
285	1	0.44216	-0.43466	-0.11089
286	0	20.95992	-21.90187	0.00000
287	1	0.44216	-0.43466	-0.11089
288*	0	-20.08375	19.74307	5.03686
289*	0	-20.08375	19.74307	5.03686
290	1	0.44216	-0.43466	-0.11089
291	0	20.95992	-21.90187	0.00000
292	0	20.95992	-21.90187	0.00000
293	1	0.44216	-0.43466	-0.11089
294	1	0.44216	-0.43466	-0.11089

Logistic Regression Report

Dataset ... \NCSSmsexport.NCSS
 Y (Ref Value) validvote(0)
 Frequency commonpostweight

DFBetas Report For validvote = 1 (Continued)

Row	Actual validvote	DFBeta Intercept	DFBeta black	DFBeta otherrace
295	0	20.95992	-21.90187	0.00000
296*	0	-20.08375	19.74307	5.03686
297*	1	-0.54033	0.56461	0.00000
298	0	20.95992	-21.90187	0.00000
299*	0	-20.08375	19.74307	5.03686
300*	0	-20.08375	19.74307	5.03686
301*	0	-20.08375	19.74307	5.03686
302*	0	-20.08375	19.74307	5.03686
303	0	20.95992	-21.90187	0.00000
304	0	20.95992	-21.90187	0.00000
305	0	20.95992	-21.90187	0.00000
306*	0	-20.08375	19.74307	5.03686
307	0	20.95992	-21.90187	0.00000
308*	0	-20.08375	19.74307	5.03686
309	0	20.95992	-21.90187	0.00000
310	1	0.44216	-0.43466	-0.11089
311*	1	-0.54033	0.56461	0.00000
312	0	20.95992	-21.90187	0.00000
313	0	20.95992	-21.90187	0.00000
314	1	0.44216	-0.43466	-0.11089
315	0	20.95992	-21.90187	0.00000
316*	0	-20.08375	19.74307	5.03686
317*	1	-0.54033	0.56461	0.00000
318*	1	-0.54033	0.56461	0.00000
319	0	20.95992	-21.90187	0.00000
320*	0	-20.08375	19.74307	5.03686
321	1	0.44216	-0.43466	-0.11089
322	0	20.95992	-21.90187	0.00000
323*	0	-20.08375	19.74307	5.03686
324*	0	-20.08375	19.74307	5.03686
325*	0	-20.08375	19.74307	5.03686
326*	1	-0.54033	0.56461	0.00000
327*	0	-20.08375	19.74307	5.03686
328*	0	-20.08375	19.74307	5.03686
329	0	20.95992	-21.90187	0.00000
330	0	20.95992	-21.90187	0.00000
331*	1	-0.54033	0.56461	0.00000
332	1	0.44216	-0.43466	-0.11089
333	0	20.95992	-21.90187	0.00000
334*	0	-20.08375	19.74307	5.03686
335*	1	-0.22785	0.00000	1.59732
336*	1	-0.54033	0.56461	0.00000
337	1	0.44216	-0.43466	-0.11089
338	0	20.95992	-21.90187	0.00000
339	0	20.95992	-21.90187	0.00000
340	1	0.44216	-0.43466	-0.11089
341*	0	-20.08375	19.74307	5.03686
342	1	0.44216	-0.43466	-0.11089

343 0 20.95992 ||||| -21.90187 ||||| 0.00000 |.....

NCSS 12.0.4

5/17/2023 1:26:51 PM 22

Logistic Regression Report

Dataset ...\\NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

DFBetas Report For validvote = 1 (Continued)

Row	Actual validvote	DFBeta Intercept	DFBeta black	DFBeta otherrace
344*	0	-20.08375	19.74307	5.03686
345	0	20.95992	-21.90187	0.00000
346*	0	-20.08375	19.74307	5.03686
347	1	0.44216	-0.43466	-0.11089
348*	1	-0.22785	0.00000	1.59732
349	1	0.44216	-0.43466	-0.11089
350*	0	-20.08375	19.74307	5.03686
351	0	20.95992	-21.90187	0.00000
352*	1	-0.54033	0.56461	0.00000
353*	0	-20.08375	19.74307	5.03686
354*	1	-0.54033	0.56461	0.00000
355	0	20.95992	-21.90187	0.00000
356*	0	-20.08375	19.74307	5.03686
357	1	0.44216	-0.43466	-0.11089
358	0	20.95992	-21.90187	0.00000
359*	1	-0.54033	0.56461	0.00000
360*	1	-0.54033	0.56461	0.00000
361*	1	-0.54033	0.56461	0.00000
362*	0	-20.08375	19.74307	5.03686
363*	1	-0.54033	0.56461	0.00000
364	1	0.44216	-0.43466	-0.11089
365*	1	-0.54033	0.56461	0.00000
366	1	0.44216	-0.43466	-0.11089
367	1	0.44216	-0.43466	-0.11089
368*	0	-20.08375	19.74307	5.03686
369	1	0.44216	-0.43466	-0.11089
370*	0	-20.08375	19.74307	5.03686
371*	1	-0.54033	0.56461	0.00000
372*	1	-0.54033	0.56461	0.00000
373*	1	-0.54033	0.56461	0.00000
374	1	0.44216	-0.43466	-0.11089
375*	1	-0.54033	0.56461	0.00000
376*	0	-20.08375	19.74307	5.03686
377*	0	-20.08375	19.74307	5.03686
378*	0	-20.08375	19.74307	5.03686
379	1	0.44216	-0.43466	-0.11089
380	1	0.44216	-0.43466	-0.11089
381	0	6.38662	0.00000	-44.77268
382*	1	-0.54033	0.56461	0.00000
383*	0	-20.08375	19.74307	5.03686
384*	1	-0.54033	0.56461	0.00000
385*	1	-0.54033	0.56461	0.00000

386	0	20.95992	|||||	-21.90187	|||||	0.00000	|.....
387	0	20.95992	|||||	-21.90187	|||||	0.00000	|.....
388	0	20.95992	|||||	-21.90187	|||||	0.00000	|.....
389*	0	-20.08375	|||||	19.74307	|||||	5.03686	|.....
390	0	20.95992	|||||	-21.90187	|||||	0.00000	|.....
391*	0	-20.08375	|||||	19.74307	|||||	5.03686	|.....
392*	0	-20.08375	|||||	19.74307	|||||	5.03686	|.....

NCSS 12.0.45/17/2023 1:26:51 PM 23

Logistic Regression Report

Dataset ... \NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

DFBetas Report For validvote = 1 (Continued)

Row	Actual validvote	DFBeta Intercept	DFBeta black	DFBeta otherrace
393	1	0.44216	-0.43466	-0.11089
394*	1	-0.54033	0.56461	0.00000
395	0	20.95992	-21.90187	0.00000
396	1	0.44216	-0.43466	-0.11089
397*	1	-0.54033	0.56461	0.00000
398*	0	-20.08375	19.74307	5.03686
399	0	20.95992	-21.90187	0.00000
400	1	0.44216	-0.43466	-0.11089
401	0	20.95992	-21.90187	0.00000
402	0	6.38662	0.00000	-44.77268
403	0	20.95992	-21.90187	0.00000
404*	0	-20.08375	19.74307	5.03686
405*	1	-0.22785	0.00000	1.59732
406*	0	-20.08375	19.74307	5.03686
407	1	0.44216	-0.43466	-0.11089
408*	0	-20.08375	19.74307	5.03686
409	0	20.95992	-21.90187	0.00000
410*	1	-0.54033	0.56461	0.00000
411	0	20.95992	-21.90187	0.00000
412	0	20.95992	-21.90187	0.00000
413*	0	-20.08375	19.74307	5.03686
414	0	20.95992	-21.90187	0.00000
415	0	6.38662	0.00000	-44.77268
416	1	0.44216	-0.43466	-0.11089
417	1	0.44216	-0.43466	-0.11089
418	0	20.95992	-21.90187	0.00000
419	1	0.44216	-0.43466	-0.11089
420	1	0.44216	-0.43466	-0.11089
421	0	20.95992	-21.90187	0.00000
422	0	6.38662	0.00000	-44.77268
423	1	0.44216	-0.43466	-0.11089
424	1	0.44216	-0.43466	-0.11089
425	1	0.44216	-0.43466	-0.11089
426*	0	-20.08375	19.74307	5.03686
427*	0	-20.08375	19.74307	5.03686
428	1	0.44216	-0.43466	-0.11089

429	0	6.38662	|||||	0.00000	|||||	-44.77268	|||||
430	0	6.38662	|||||	0.00000	|||||	-44.77268	|||||
431*	0	-20.08375	|||||	19.74307	|||||	5.03686	|||||
432	0	20.95992	|||||	-21.90187	|||||	0.00000	|||||
433	0	20.95992	|||||	-21.90187	|||||	0.00000	|||||
434*	0	-20.08375	|||||	19.74307	|||||	5.03686	|||||
435*	0	-20.08375	|||||	19.74307	|||||	5.03686	|||||
436	0	20.95992	|||||	-21.90187	|||||	0.00000	|||||
437	0	20.95992	|||||	-21.90187	|||||	0.00000	|||||
438	0	6.38662	|||||	0.00000	|||||	-44.77268	|||||
439*	0	-20.08375	|||||	19.74307	|||||	5.03686	|||||
440*	0	-20.08375	|||||	19.74307	|||||	5.03686	|||||
441	0	20.95992	|||||	-21.90187	|||||	0.00000	|||||

NCSS 12.0.4

5/17/2023 1:26:51 PM 24

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

DFBetas Report For validvote = 1 (Continued)

Row	Actual validvote	DFBeta Intercept	DFBeta black	DFBeta otherrace
442*	0	-20.08375	19.74307	5.03686
443	0	20.95992	-21.90187	0.00000
444*	0	-20.08375	19.74307	5.03686
445	0	20.95992	-21.90187	0.00000
446*	0	-20.08375	19.74307	5.03686
447*	1	-0.54033	0.56461	0.00000
448*	1	-0.54033	0.56461	0.00000
449*	1	-0.54033	0.56461	0.00000
450*	0	-20.08375	19.74307	5.03686
451	1	0.44216	-0.43466	-0.11089
452	1	0.44216	-0.43466	-0.11089
453	0	20.95992	-21.90187	0.00000
454*	0	-20.08375	19.74307	5.03686
455	0	20.95992	-21.90187	0.00000
456	0	20.95992	-21.90187	0.00000
457	0	20.95992	-21.90187	0.00000
458*	0	-20.08375	19.74307	5.03686
459	1	0.44216	-0.43466	-0.11089
460	0	20.95992	-21.90187	0.00000

NCSS 12.0.4

5/17/2023 1:26:51 PM 25

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Influence Diagnostics Report For validvote = 1

Row	Actual validvote	Hat Diagonal	Cook's Distance (C)	Cook's Distance (CBar)
1	1	0.44911	159.93919	88.10898
2	1	0.44911	159.93919	88.10898
3*	1	0.57746	308.17036	130.21478
4*	0	0.44911	186.38389	102.67711
5	1	0.44911	159.93919	88.10898
6	1	0.44911	159.93919	88.10898
7*	1	0.57746	308.17036	130.21478
8	1	0.44911	159.93919	88.10898
9	1	0.44911	159.93919	88.10898
10	1	0.44911	159.93919	88.10898
11	1	0.44911	159.93919	88.10898
12	1	0.44911	159.93919	88.10898
13	1	0.44911	159.93919	88.10898
14*	1	0.96226	4235.00431	159.82785
15*	1	0.57746	308.17036	130.21478
16*	1	0.57746	308.17036	130.21478
17*	1	0.57746	308.17036	130.21478
18	1	0.44911	159.93919	88.10898
19	1	0.44911	159.93919	88.10898
20*	0	0.44911	186.38389	102.67711
21	1	0.44911	159.93919	88.10898
22*	0	0.44911	186.38389	102.67711
23	0	0.57746	263.80925	111.47037
24	0	0.57746	263.80925	111.47037
25*	1	0.96226	4235.00431	159.82785
26	1	0.44911	159.93919	88.10898
27*	0	0.44911	186.38389	102.67711
28	1	0.44911	159.93919	88.10898
29*	0	0.44911	186.38389	102.67711
30*	0	0.44911	186.38389	102.67711
31	1	0.44911	159.93919	88.10898
32	1	0.44911	159.93919	88.10898
33	1	0.44911	159.93919	88.10898
34*	0	0.44911	186.38389	102.67711
35*	1	0.57746	308.17036	130.21478
36*	0	0.44911	186.38389	102.67711
37	1	0.44911	159.93919	88.10898
38	0	0.57746	263.80925	111.47037
39*	0	0.44911	186.38389	102.67711
40*	0	0.44911	186.38389	102.67711
41	1	0.44911	159.93919	88.10898
42	1	0.44911	159.93919	88.10898
43*	0	0.44911	186.38389	102.67711
44	0	0.96226	1499.55501	56.59278
45	1	0.44911	159.93919	88.10898
46*	0	0.44911	186.38389	102.67711
47*	0	0.44911	186.38389	102.67711
48	1	0.44911	159.93919	88.10898

Logistic Regression Report

Dataset ... \NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Influence Diagnostics Report For validvote = 1 (Continued)

Row	Actual validvote	Hat Diagonal	Cook's Distance (C)	Cook's Distance (CBar)
49	1	0.44911	159.93919	88.10898
50	1	0.44911	159.93919	88.10898
51	1	0.44911	159.93919	88.10898
52*	0	0.44911	186.38389	102.67711
53	1	0.44911	159.93919	88.10898
54	0	0.57746	263.80925	111.47037
55*	0	0.44911	186.38389	102.67711
56	1	0.44911	159.93919	88.10898
57	1	0.44911	159.93919	88.10898
58*	1	0.57746	308.17036	130.21478
59	1	0.44911	159.93919	88.10898
60	1	0.44911	159.93919	88.10898
61*	1	0.96226	4235.00431	159.82785
62*	0	0.44911	186.38389	102.67711
63	1	0.44911	159.93919	88.10898
64	0	0.57746	263.80925	111.47037
65*	0	0.44911	186.38389	102.67711
66	1	0.44911	159.93919	88.10898
67	1	0.44911	159.93919	88.10898
68	1	0.44911	159.93919	88.10898
69	1	0.44911	159.93919	88.10898
70*	0	0.44911	186.38389	102.67711
71*	1	0.57746	308.17036	130.21478
72	1	0.44911	159.93919	88.10898
73*	0	0.44911	186.38389	102.67711
74*	0	0.44911	186.38389	102.67711
75	1	0.44911	159.93919	88.10898
76*	0	0.44911	186.38389	102.67711
77	1	0.44911	159.93919	88.10898
78	1	0.44911	159.93919	88.10898
79	1	0.44911	159.93919	88.10898
80	1	0.44911	159.93919	88.10898
81	0	0.57746	263.80925	111.47037
82*	1	0.57746	308.17036	130.21478
83	1	0.44911	159.93919	88.10898
84	0	0.57746	263.80925	111.47037
85*	1	0.57746	308.17036	130.21478
86	0	0.96226	1499.55501	56.59278
87	1	0.44911	159.93919	88.10898
88*	0	0.44911	186.38389	102.67711
89	1	0.44911	159.93919	88.10898
90	1	0.44911	159.93919	88.10898
91	1	0.44911	159.93919	88.10898
92	1	0.44911	159.93919	88.10898
93*	0	0.44911	186.38389	102.67711

94	1	0.44911	|||||.....	159.93919	.....	88.10898	|||||.....
95	1	0.44911	|||||.....	159.93919	.....	88.10898	|||||.....
96*	1	0.57746	|||||.....	308.17036	.....	130.21478	|||||.....

NCSS 12.0.45/17/2023 1:26:51 PM 27

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Influence Diagnostics Report For validvote = 1 (Continued)

Row	Actual validvote	Hat Diagonal	Cook's Distance (C)	Cook's Distance (CBar)
97	1	0.44911 |||||.....	159.93919 |.....	88.10898 |||||.....
98	1	0.44911 |||||.....	159.93919 |.....	88.10898 |||||.....
99*	0	0.44911 |||||.....	186.38389 |.....	102.67711 |||||.....
100*	1	0.57746 |||||.....	308.17036 |.....	130.21478 |||||.....
101*	1	0.57746 |||||.....	308.17036 |.....	130.21478 |||||.....
102	0	0.57746 |||||.....	263.80925 |.....	111.47037 |||||.....
103*	0	0.44911 |||||.....	186.38389 |.....	102.67711 |||||.....
104*	1	0.57746 |||||.....	308.17036 |.....	130.21478 |||||.....
105*	0	0.44911 |||||.....	186.38389 |.....	102.67711 |||||.....
106*	1	0.57746 |||||.....	308.17036 |.....	130.21478 |||||.....
107*	0	0.44911 |||||.....	186.38389 |.....	102.67711 |||||.....
108*	1	0.57746 |||||.....	308.17036 |.....	130.21478 |||||.....
109	0	0.57746 |||||.....	263.80925 |.....	111.47037 |||||.....
110*	1	0.57746 |||||.....	308.17036 |.....	130.21478 |||||.....
111*	1	0.57746 |||||.....	308.17036 |.....	130.21478 |||||.....
112*	1	0.57746 |||||.....	308.17036 |.....	130.21478 |||||.....
113	1	0.44911 |||||.....	159.93919 |.....	88.10898 |||||.....
114	0	0.57746 |||||.....	263.80925 |.....	111.47037 |||||.....
115*	0	0.44911 |||||.....	186.38389 |.....	102.67711 |||||.....
116*	1	0.57746 |||||.....	308.17036 |.....	130.21478 |||||.....
117	1	0.44911 |||||.....	159.93919 |.....	88.10898 |||||.....
118	1	0.44911 |||||.....	159.93919 |.....	88.10898 |||||.....
119	1	0.44911 |||||.....	159.93919 |.....	88.10898 |||||.....
120	0	0.57746 |||||.....	263.80925 |.....	111.47037 |||||.....
121*	0	0.44911 |||||.....	186.38389 |.....	102.67711 |||||.....
122*	0	0.44911 |||||.....	186.38389 |.....	102.67711 |||||.....
123	1	0.44911 |||||.....	159.93919 |.....	88.10898 |||||.....
124	1	0.44911 |||||.....	159.93919 |.....	88.10898 |||||.....
125	1	0.44911 |||||.....	159.93919 |.....	88.10898 |||||.....
126*	0	0.44911 |||||.....	186.38389 |.....	102.67711 |||||.....
127	1	0.44911 |||||.....	159.93919 |.....	88.10898 |||||.....
128	1	0.44911 |||||.....	159.93919 |.....	88.10898 |||||.....
129*	0	0.44911 |||||.....	186.38389 |.....	102.67711 |||||.....
130	1	0.44911 |||||.....	159.93919 |.....	88.10898 |||||.....
131*	0	0.44911 |||||.....	186.38389 |.....	102.67711 |||||.....
132*	0	0.44911 |||||.....	186.38389 |.....	102.67711 |||||.....
133	1	0.44911 |||||.....	159.93919 |.....	88.10898 |||||.....
134	1	0.44911 |||||.....	159.93919 |.....	88.10898 |||||.....
135*	0	0.44911 |||||.....	186.38389 |.....	102.67711 |||||.....

136*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
137*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
138*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
139*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
140	0	0.57746	|||||.....	263.80925	|.....	111.47037	|||||.....
141	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
142	0	0.57746	|||||.....	263.80925	|.....	111.47037	|||||.....
143*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
144*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....

NCSS 12.0.4

5/17/2023 1:26:51 PM 28

Logistic Regression Report

Dataset ...\\NCSSmsexport.NC
Y (Ref Value) validvote(0)
Frequency commonpostweight

Influence Diagnostics Report For validvote = 1 (Continued)

Row	Actual validvote	Hat Diagonal	Cook's Distance (C)	Cook's Distance (CBar)
145*	0	0.44911	|||||.....	102.67711
146	0	0.96226	|||||.....	56.59278
147*	1	0.57746	|||||.....	130.21478
148*	1	0.57746	|||||.....	130.21478
149	1	0.44911	|||||.....	88.10898
150*	1	0.57746	|||||.....	130.21478
151*	1	0.96226	|||||.....	159.82785
152	0	0.57746	|||||.....	111.47037
153*	1	0.57746	|||||.....	130.21478
154	1	0.44911	|||||.....	88.10898
155	0	0.57746	|||||.....	111.47037
156*	0	0.44911	|||||.....	102.67711
157*	1	0.57746	|||||.....	130.21478
158	1	0.44911	|||||.....	88.10898
159*	0	0.44911	|||||.....	102.67711
160	0	0.57746	|||||.....	111.47037
161*	0	0.44911	|||||.....	102.67711
162*	0	0.44911	|||||.....	102.67711
163*	0	0.44911	|||||.....	102.67711
164	1	0.44911	|||||.....	88.10898
165	0	0.57746	|||||.....	111.47037
166	1	0.44911	|||||.....	88.10898
167	0	0.57746	|||||.....	111.47037
168	1	0.44911	|||||.....	88.10898
169	1	0.44911	|||||.....	88.10898
170	0	0.57746	|||||.....	111.47037
171	1	0.44911	|||||.....	88.10898
172	1	0.44911	|||||.....	88.10898
173*	0	0.44911	|||||.....	102.67711
174*	0	0.44911	|||||.....	102.67711
175	0	0.57746	|||||.....	111.47037
176*	0	0.44911	|||||.....	102.67711
177*	0	0.44911	|||||.....	102.67711

178	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
179	0	0.57746	|||||.....	263.80925	|.....	111.47037	|||||.....
180*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
181*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
182	0	0.57746	|||||.....	263.80925	|.....	111.47037	|||||.....
183*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
184*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
185	0	0.57746	|||||.....	263.80925	|.....	111.47037	|||||.....
186	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
187	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
188	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
189	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
190	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
191*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
192*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....

NCSS 12.0.4

5/17/2023 1:26:51 PM 29

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Influence Diagnostics Report For validvote = 1 (Continued)

Row	Actual validvote	Hat Diagonal		Cook's Distance (C)		Cook's Distance (CBar)	
193	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
194	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
195	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
196*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
197	0	0.57746	|||||.....	263.80925	|.....	111.47037	|||||.....
198	0	0.57746	|||||.....	263.80925	|.....	111.47037	|||||.....
199	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
200	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
201*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
202*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
203	0	0.57746	|||||.....	263.80925	|.....	111.47037	|||||.....
204	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
205*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
206	0	0.57746	|||||.....	263.80925	|.....	111.47037	|||||.....
207*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
208	0	0.57746	|||||.....	263.80925	|.....	111.47037	|||||.....
209*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
210*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
211*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
212*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
213*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
214	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
215	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
216	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
217	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
218*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
219	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....

220*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
221	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
222*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
223	0	0.57746	|||||.....	263.80925	|.....	111.47037	|||||.....
224*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
225*	1	0.96226	|||||.....	4235.00431	|||||.....	159.82785	|||||.....
226	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
227	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
228*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
229	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
230	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
231*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
232	0	0.96226	|||||.....	1499.55501	|||||.....	56.59278	|||||.....
233	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
234	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
235*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
236	0	0.57746	|||||.....	263.80925	|.....	111.47037	|||||.....
237*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
238*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
239*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
240	0	0.57746	|||||.....	263.80925	|.....	111.47037	|||||.....

NCSS 12.0.4

5/17/2023 1:26:51 PM 30

Logistic Regression Report

Dataset ... \NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Influence Diagnostics Report For validvote = 1 (Continued)

Row	Actual validvote	Hat Diagonal	Cook's Distance (C)	Cook's Distance (CBar)
241	1	0.44911	|||||.....	88.10898
242*	0	0.44911	|||||.....	102.67711
243*	0	0.44911	|||||.....	102.67711
244*	1	0.57746	|||||.....	130.21478
245	1	0.44911	|||||.....	88.10898
246	1	0.44911	|||||.....	88.10898
247	0	0.57746	|||||.....	111.47037
248	1	0.44911	|||||.....	88.10898
249	1	0.44911	|||||.....	88.10898
250	1	0.44911	|||||.....	88.10898
251	1	0.44911	|||||.....	88.10898
252*	0	0.44911	|||||.....	102.67711
253	0	0.57746	|||||.....	111.47037
254	0	0.57746	|||||.....	111.47037
255*	0	0.44911	|||||.....	102.67711
256	1	0.44911	|||||.....	88.10898
257	1	0.44911	|||||.....	88.10898
258*	1	0.57746	|||||.....	130.21478
259	1	0.44911	|||||.....	88.10898
260*	0	0.44911	|||||.....	102.67711
261*	0	0.44911	|||||.....	102.67711

262	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
263*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
264*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
265*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
266	0	0.57746	|||||.....	263.80925	|.....	111.47037	|||||.....
267	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
268	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
269*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
270*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
271	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
272*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
273*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
274	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
275*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
276	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
277*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
278	0	0.57746	|||||.....	263.80925	|.....	111.47037	|||||.....
279*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
280*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
281	0	0.57746	|||||.....	263.80925	|.....	111.47037	|||||.....
282*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
283	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
284*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
285	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
286	0	0.57746	|||||.....	263.80925	|.....	111.47037	|||||.....
287	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
288*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....

NCSS 12.0.4

5/17/2023 1:26:51 PM 31

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Influence Diagnostics Report For validvote = 1 (Continued)

Row	Actual validvote	Hat Diagonal	Cook's Distance (C)	Cook's Distance (CBar)
289*	0	0.44911 |||||.....	186.38389 |.....	102.67711 |||||.....
290	1	0.44911 |||||.....	159.93919 |.....	88.10898 |||||.....
291	0	0.57746 |||||.....	263.80925 |.....	111.47037 |||||.....
292	0	0.57746 |||||.....	263.80925 |.....	111.47037 |||||.....
293	1	0.44911 |||||.....	159.93919 |.....	88.10898 |||||.....
294	1	0.44911 |||||.....	159.93919 |.....	88.10898 |||||.....
295	0	0.57746 |||||.....	263.80925 |.....	111.47037 |||||.....
296*	0	0.44911 |||||.....	186.38389 |.....	102.67711 |||||.....
297*	1	0.57746 |||||.....	308.17036 |.....	130.21478 |||||.....
298	0	0.57746 |||||.....	263.80925 |.....	111.47037 |||||.....
299*	0	0.44911 |||||.....	186.38389 |.....	102.67711 |||||.....
300*	0	0.44911 |||||.....	186.38389 |.....	102.67711 |||||.....
301*	0	0.44911 |||||.....	186.38389 |.....	102.67711 |||||.....
302*	0	0.44911 |||||.....	186.38389 |.....	102.67711 |||||.....
303	0	0.57746 |||||.....	263.80925 |.....	111.47037 |||||.....

304	0	0.57746	|||||||.....	263.80925	|.....	111.47037	|||||||.....
305	0	0.57746	|||||||.....	263.80925	|.....	111.47037	|||||||.....
306*	0	0.44911	|||||||.....	186.38389	|.....	102.67711	|||||||.....
307	0	0.57746	|||||||.....	263.80925	|.....	111.47037	|||||||.....
308*	0	0.44911	|||||||.....	186.38389	|.....	102.67711	|||||||.....
309	0	0.57746	|||||||.....	263.80925	|.....	111.47037	|||||||.....
310	1	0.44911	|||||||.....	159.93919	|.....	88.10898	|||||||.....
311*	1	0.57746	|||||||.....	308.17036	|.....	130.21478	|||||||.....
312	0	0.57746	|||||||.....	263.80925	|.....	111.47037	|||||||.....
313	0	0.57746	|||||||.....	263.80925	|.....	111.47037	|||||||.....
314	1	0.44911	|||||||.....	159.93919	|.....	88.10898	|||||||.....
315	0	0.57746	|||||||.....	263.80925	|.....	111.47037	|||||||.....
316*	0	0.44911	|||||||.....	186.38389	|.....	102.67711	|||||||.....
317*	1	0.57746	|||||||.....	308.17036	|.....	130.21478	|||||||.....
318*	1	0.57746	|||||||.....	308.17036	|.....	130.21478	|||||||.....
319	0	0.57746	|||||||.....	263.80925	|.....	111.47037	|||||||.....
320*	0	0.44911	|||||||.....	186.38389	|.....	102.67711	|||||||.....
321	1	0.44911	|||||||.....	159.93919	|.....	88.10898	|||||||.....
322	0	0.57746	|||||||.....	263.80925	|.....	111.47037	|||||||.....
323*	0	0.44911	|||||||.....	186.38389	|.....	102.67711	|||||||.....
324*	0	0.44911	|||||||.....	186.38389	|.....	102.67711	|||||||.....
325*	0	0.44911	|||||||.....	186.38389	|.....	102.67711	|||||||.....
326*	1	0.57746	|||||||.....	308.17036	|.....	130.21478	|||||||.....
327*	0	0.44911	|||||||.....	186.38389	|.....	102.67711	|||||||.....
328*	0	0.44911	|||||||.....	186.38389	|.....	102.67711	|||||||.....
329	0	0.57746	|||||||.....	263.80925	|.....	111.47037	|||||||.....
330	0	0.57746	|||||||.....	263.80925	|.....	111.47037	|||||||.....
331*	1	0.57746	|||||||.....	308.17036	|.....	130.21478	|||||||.....
332	1	0.44911	|||||||.....	159.93919	|.....	88.10898	|||||||.....
333	0	0.57746	|||||||.....	263.80925	|.....	111.47037	|||||||.....
334*	0	0.44911	|||||||.....	186.38389	|.....	102.67711	|||||||.....
335*	1	0.96226	|||||||.....	4235.00431	|||||||.....	159.82785	|||||||.....
336*	1	0.57746	|||||||.....	308.17036	|.....	130.21478	|||||||.....

NCSS 12.0.4

5/17/2023 1:26:51 PM 32

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Influence Diagnostics Report For validvote = 1 (Continued)

Row	Actual validvote	Hat Diagonal	Cook's Distance (C)	Cook's Distance (CBar)
337	1	0.44911	159.93919	88.10898
338	0	0.57746	263.80925	111.47037
339	0	0.57746	263.80925	111.47037
340	1	0.44911	159.93919	88.10898
341*	0	0.44911	186.38389	102.67711
342	1	0.44911	159.93919	88.10898
343	0	0.57746	263.80925	111.47037
344*	0	0.44911	186.38389	102.67711
345	0	0.57746	263.80925	111.47037

346*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
347	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
348*	1	0.96226	|||||.....	4235.00431	|||||.....	159.82785	|||||.....
349	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
350*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
351	0	0.57746	|||||.....	263.80925	|.....	111.47037	|||||.....
352*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
353*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
354*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
355	0	0.57746	|||||.....	263.80925	|.....	111.47037	|||||.....
356*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
357	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
358	0	0.57746	|||||.....	263.80925	|.....	111.47037	|||||.....
359*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
360*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
361*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
362*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
363*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
364	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
365*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
366	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
367	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
368*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
369	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
370*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
371*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
372*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
373*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
374	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
375*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
376*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
377*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
378*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
379	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
380	1	0.44911	|||||.....	159.93919	|.....	88.10898	|||||.....
381	0	0.96226	|||||.....	1499.55501	|||||.....	56.59278	|||||.....
382*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....
383*	0	0.44911	|||||.....	186.38389	|.....	102.67711	|||||.....
384*	1	0.57746	|||||.....	308.17036	|.....	130.21478	|||||.....

NCSS 12.0.4

5/17/2023 1:26:51 PM 33

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Influence Diagnostics Report For validvote = 1 (Continued)

Row	Actual validvote	Hat Diagonal	Cook's Distance (C)	Cook's Distance (CBar)
385*	1	0.57746 |||||.....	308.17036 |.....	130.21478 |||||.....
386	0	0.57746 |||||.....	263.80925 |.....	111.47037 |||||.....
387	0	0.57746 |||||.....	263.80925 |.....	111.47037 |||||.....

388	0	0.57746	|||||	263.80925	111.47037	|||||
389*	0	0.44911	|||||	186.38389	102.67711	|||||
390	0	0.57746	|||||	263.80925	111.47037	|||||
391*	0	0.44911	|||||	186.38389	102.67711	|||||
392*	0	0.44911	|||||	186.38389	102.67711	|||||
393	1	0.44911	|||||	159.93919	88.10898	|||||
394*	1	0.57746	|||||	308.17036	130.21478	|||||
395	0	0.57746	|||||	263.80925	111.47037	|||||
396	1	0.44911	|||||	159.93919	88.10898	|||||
397*	1	0.57746	|||||	308.17036	130.21478	|||||
398*	0	0.44911	|||||	186.38389	102.67711	|||||
399	0	0.57746	|||||	263.80925	111.47037	|||||
400	1	0.44911	|||||	159.93919	88.10898	|||||
401	0	0.57746	|||||	263.80925	111.47037	|||||
402	0	0.96226	|||||	1499.55501	56.59278	|||||
403	0	0.57746	|||||	263.80925	111.47037	|||||
404*	0	0.44911	|||||	186.38389	102.67711	|||||
405*	1	0.96226	|||||	4235.00431	159.82785	|||||
406*	0	0.44911	|||||	186.38389	102.67711	|||||
407	1	0.44911	|||||	159.93919	88.10898	|||||
408*	0	0.44911	|||||	186.38389	102.67711	|||||
409	0	0.57746	|||||	263.80925	111.47037	|||||
410*	1	0.57746	|||||	308.17036	130.21478	|||||
411	0	0.57746	|||||	263.80925	111.47037	|||||
412	0	0.57746	|||||	263.80925	111.47037	|||||
413*	0	0.44911	|||||	186.38389	102.67711	|||||
414	0	0.57746	|||||	263.80925	111.47037	|||||
415	0	0.96226	|||||	1499.55501	56.59278	|||||
416	1	0.44911	|||||	159.93919	88.10898	|||||
417	1	0.44911	|||||	159.93919	88.10898	|||||
418	0	0.57746	|||||	263.80925	111.47037	|||||
419	1	0.44911	|||||	159.93919	88.10898	|||||
420	1	0.44911	|||||	159.93919	88.10898	|||||
421	0	0.57746	|||||	263.80925	111.47037	|||||
422	0	0.96226	|||||	1499.55501	56.59278	|||||
423	1	0.44911	|||||	159.93919	88.10898	|||||
424	1	0.44911	|||||	159.93919	88.10898	|||||
425	1	0.44911	|||||	159.93919	88.10898	|||||
426*	0	0.44911	|||||	186.38389	102.67711	|||||
427*	0	0.44911	|||||	186.38389	102.67711	|||||
428	1	0.44911	|||||	159.93919	88.10898	|||||
429	0	0.96226	|||||	1499.55501	56.59278	|||||
430	0	0.96226	|||||	1499.55501	56.59278	|||||
431*	0	0.44911	|||||	186.38389	102.67711	|||||
432	0	0.57746	|||||	263.80925	111.47037	|||||

NCSS 12.0.4

5/17/2023 1:26:51 PM 34

Logistic Regression Report

Dataset ... \NCSSmssexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Influence Diagnostics Report For validvote = 1 (Continued)

Row	Actual validvote	Hat Diagonal	Cook's Distance (C)	Cook's Distance (CBar)
433	0	0.57746	263.80925	111.47037
434*	0	0.44911	186.38389	102.67711
435*	0	0.44911	186.38389	102.67711
436	0	0.57746	263.80925	111.47037
437	0	0.57746	263.80925	111.47037
438	0	0.96226	1499.55501	56.59278
439*	0	0.44911	186.38389	102.67711
440*	0	0.44911	186.38389	102.67711
441	0	0.57746	263.80925	111.47037
442*	0	0.44911	186.38389	102.67711
443	0	0.57746	263.80925	111.47037
444*	0	0.44911	186.38389	102.67711
445	0	0.57746	263.80925	111.47037
446*	0	0.44911	186.38389	102.67711
447*	1	0.57746	308.17036	130.21478
448*	1	0.57746	308.17036	130.21478
449*	1	0.57746	308.17036	130.21478
450*	0	0.44911	186.38389	102.67711
451	1	0.44911	159.93919	88.10898
452	1	0.44911	159.93919	88.10898
453	0	0.57746	263.80925	111.47037
454*	0	0.44911	186.38389	102.67711
455	0	0.57746	263.80925	111.47037
456	0	0.57746	263.80925	111.47037
457	0	0.57746	263.80925	111.47037
458*	0	0.44911	186.38389	102.67711
459	1	0.44911	159.93919	88.10898
460	0	0.57746	263.80925	111.47037

NCSS 12.0.4

5/17/2023 1:26:51 PM 35

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Residual Diagnostics Report For validvote = 1

Row	Actual validvote	Hat Diagonal	Deviance Change (DFDev)	Chi-Square Change (DFChi2)
1	1	0.44911	93.71207	196.18596
2	1	0.44911	93.71207	196.18596
3*	1	0.57746	134.47151	225.49637
4*	0	0.44911	108.14792	228.62377
5	1	0.44911	93.71207	196.18596
6	1	0.44911	93.71207	196.18596
7*	1	0.57746	134.47151	225.49637
8	1	0.44911	93.71207	196.18596
9	1	0.44911	93.71207	196.18596
10	1	0.44911	93.71207	196.18596

11	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
12	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
13	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
14*	1	0.96226	|||||.....	159.98894	|||||.....	166.09627	|||||.....
15*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
16*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
17*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
18	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
19	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
20*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
21	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
22*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
23	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
24	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
25*	1	0.96226	|||||.....	159.98894	|||||.....	166.09627	|||||.....
26	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
27*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
28	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
29*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
30*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
31	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
32	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
33	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
34*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
35*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
36*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
37	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
38	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
39*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
40*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
41	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
42	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
43*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
44	0	0.96226	|||||.....	56.75007	|||||.....	58.81234	|||||.....
45	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
46*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
47*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
48	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....

NCSS 12.0.4

5/17/2023 1:26:51 PM 36

Logistic Regression Report

Dataset ... \NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Residual Diagnostics Report For validvote = 1 (Continued)

Row	Actual validvote	Hat Diagonal	Deviance Change (DFDev)	Chi-Square Change (DFChi2)
49	1	0.44911	93.71207	196.18596
50	1	0.44911	93.71207	196.18596
51	1	0.44911	93.71207	196.18596
52*	0	0.44911	108.14792	228.62377

53	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
54	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
55*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
56	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
57	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
58*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
59	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
60	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
61*	1	0.96226	|||||.....	159.98894	|||||.....	166.09627	|||||.....
62*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
63	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
64	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
65*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
66	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
67	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
68	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
69	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
70*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
71*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
72	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
73*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
74*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
75	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
76*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
77	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
78	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
79	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
80	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
81	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
82*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
83	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
84	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
85*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
86	0	0.96226	|||||.....	56.75007	|||||.....	58.81234	|||||.....
87	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
88*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
89	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
90	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
91	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
92	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
93*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
94	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
95	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
96*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....

NCSS 12.0.4

5/17/2023 1:26:51 PM 37

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Residual Diagnostics Report For validvote = 1 (Continued)

Row	Actual validvote	Hat Diagonal	Deviance Change (DFDev)	Chi-Square Change (DFChi2)
97	1	0.44911	93.71207	196.18596
98	1	0.44911	93.71207	196.18596
99*	0	0.44911	108.14792	228.62377
100*	1	0.57746	134.47151	225.49637
101*	1	0.57746	134.47151	225.49637
102	0	0.57746	115.62666	193.03618
103*	0	0.44911	108.14792	228.62377
104*	1	0.57746	134.47151	225.49637
105*	0	0.44911	108.14792	228.62377
106*	1	0.57746	134.47151	225.49637
107*	0	0.44911	108.14792	228.62377
108*	1	0.57746	134.47151	225.49637
109	0	0.57746	115.62666	193.03618
110*	1	0.57746	134.47151	225.49637
111*	1	0.57746	134.47151	225.49637
112*	1	0.57746	134.47151	225.49637
113	1	0.44911	93.71207	196.18596
114	0	0.57746	115.62666	193.03618
115*	0	0.44911	108.14792	228.62377
116*	1	0.57746	134.47151	225.49637
117	1	0.44911	93.71207	196.18596
118	1	0.44911	93.71207	196.18596
119	1	0.44911	93.71207	196.18596
120	0	0.57746	115.62666	193.03618
121*	0	0.44911	108.14792	228.62377
122*	0	0.44911	108.14792	228.62377
123	1	0.44911	93.71207	196.18596
124	1	0.44911	93.71207	196.18596
125	1	0.44911	93.71207	196.18596
126*	0	0.44911	108.14792	228.62377
127	1	0.44911	93.71207	196.18596
128	1	0.44911	93.71207	196.18596
129*	0	0.44911	108.14792	228.62377
130	1	0.44911	93.71207	196.18596
131*	0	0.44911	108.14792	228.62377
132*	0	0.44911	108.14792	228.62377
133	1	0.44911	93.71207	196.18596
134	1	0.44911	93.71207	196.18596
135*	0	0.44911	108.14792	228.62377
136*	0	0.44911	108.14792	228.62377
137*	0	0.44911	108.14792	228.62377
138*	0	0.44911	108.14792	228.62377
139*	1	0.57746	134.47151	225.49637
140	0	0.57746	115.62666	193.03618
141	1	0.44911	93.71207	196.18596
142	0	0.57746	115.62666	193.03618
143*	1	0.57746	134.47151	225.49637
144*	1	0.57746	134.47151	225.49637

NCSS 12.0.4

5/17/2023 1:26:51 PM 38

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
 Y (Ref Value) validvote(0)
 Frequency commonpostweight

Residual Diagnostics Report For validvote = 1 (Continued)

Row	Actual validvote	Hat Diagonal	Deviance Change (DFDev)	Chi-Square Change (DFChi2)
145*	0	0.44911	108.14792	228.62377
146	0	0.96226	56.75007	58.81234
147*	1	0.57746	134.47151	225.49637
148*	1	0.57746	134.47151	225.49637
149	1	0.44911	93.71207	196.18596
150*	1	0.57746	134.47151	225.49637
151*	1	0.96226	159.98894	166.09627
152	0	0.57746	115.62666	193.03618
153*	1	0.57746	134.47151	225.49637
154	1	0.44911	93.71207	196.18596
155	0	0.57746	115.62666	193.03618
156*	0	0.44911	108.14792	228.62377
157*	1	0.57746	134.47151	225.49637
158	1	0.44911	93.71207	196.18596
159*	0	0.44911	108.14792	228.62377
160	0	0.57746	115.62666	193.03618
161*	0	0.44911	108.14792	228.62377
162*	0	0.44911	108.14792	228.62377
163*	0	0.44911	108.14792	228.62377
164	1	0.44911	93.71207	196.18596
165	0	0.57746	115.62666	193.03618
166	1	0.44911	93.71207	196.18596
167	0	0.57746	115.62666	193.03618
168	1	0.44911	93.71207	196.18596
169	1	0.44911	93.71207	196.18596
170	0	0.57746	115.62666	193.03618
171	1	0.44911	93.71207	196.18596
172	1	0.44911	93.71207	196.18596
173*	0	0.44911	108.14792	228.62377
174*	0	0.44911	108.14792	228.62377
175	0	0.57746	115.62666	193.03618
176*	0	0.44911	108.14792	228.62377
177*	0	0.44911	108.14792	228.62377
178	1	0.44911	93.71207	196.18596
179	0	0.57746	115.62666	193.03618
180*	0	0.44911	108.14792	228.62377
181*	1	0.57746	134.47151	225.49637
182	0	0.57746	115.62666	193.03618
183*	0	0.44911	108.14792	228.62377
184*	1	0.57746	134.47151	225.49637
185	0	0.57746	115.62666	193.03618
186	1	0.44911	93.71207	196.18596
187	1	0.44911	93.71207	196.18596

188	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
189	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
190	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
191*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
192*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....

NCSS 12.0.45/17/2023 1:26:51 PM 39

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Residual Diagnostics Report For validvote = 1 (Continued)

Row	Actual validvote	Hat Diagonal	Deviance Change (DFDev)	Chi-Square Change (DFChi2)
193	1	0.44911	93.71207	196.18596
194	1	0.44911	93.71207	196.18596
195	1	0.44911	93.71207	196.18596
196*	0	0.44911	108.14792	228.62377
197	0	0.57746	115.62666	193.03618
198	0	0.57746	115.62666	193.03618
199	1	0.44911	93.71207	196.18596
200	1	0.44911	93.71207	196.18596
201*	0	0.44911	108.14792	228.62377
202*	0	0.44911	108.14792	228.62377
203	0	0.57746	115.62666	193.03618
204	1	0.44911	93.71207	196.18596
205*	1	0.57746	134.47151	225.49637
206	0	0.57746	115.62666	193.03618
207*	0	0.44911	108.14792	228.62377
208	0	0.57746	115.62666	193.03618
209*	0	0.44911	108.14792	228.62377
210*	0	0.44911	108.14792	228.62377
211*	0	0.44911	108.14792	228.62377
212*	0	0.44911	108.14792	228.62377
213*	0	0.44911	108.14792	228.62377
214	1	0.44911	93.71207	196.18596
215	1	0.44911	93.71207	196.18596
216	1	0.44911	93.71207	196.18596
217	1	0.44911	93.71207	196.18596
218*	0	0.44911	108.14792	228.62377
219	1	0.44911	93.71207	196.18596
220*	1	0.57746	134.47151	225.49637
221	1	0.44911	93.71207	196.18596
222*	0	0.44911	108.14792	228.62377
223	0	0.57746	115.62666	193.03618
224*	0	0.44911	108.14792	228.62377
225*	1	0.96226	159.98894	166.09627
226	1	0.44911	93.71207	196.18596
227	1	0.44911	93.71207	196.18596
228*	0	0.44911	108.14792	228.62377
229	1	0.44911	93.71207	196.18596

230	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
231*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
232	0	0.96226	|||||.....	56.75007	|||||.....	58.81234	|||||.....
233	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
234	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
235*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
236	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
237*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
238*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
239*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
240	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....

NCSS 12.0.4

5/17/2023 1:26:51 PM 40

Logistic Regression Report

Dataset ...\\NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Residual Diagnostics Report For validvote = 1 (Continued)

Row	Actual validvote	Hat Diagonal	Deviance Change (DFDev)	Chi-Square Change (DFChi2)
241	1	0.44911	|||||.....	196.18596
242*	0	0.44911	|||||.....	228.62377
243*	0	0.44911	|||||.....	228.62377
244*	1	0.57746	|||||.....	225.49637
245	1	0.44911	|||||.....	196.18596
246	1	0.44911	|||||.....	196.18596
247	0	0.57746	|||||.....	193.03618
248	1	0.44911	|||||.....	196.18596
249	1	0.44911	|||||.....	196.18596
250	1	0.44911	|||||.....	196.18596
251	1	0.44911	|||||.....	196.18596
252*	0	0.44911	|||||.....	228.62377
253	0	0.57746	|||||.....	193.03618
254	0	0.57746	|||||.....	193.03618
255*	0	0.44911	|||||.....	228.62377
256	1	0.44911	|||||.....	196.18596
257	1	0.44911	|||||.....	196.18596
258*	1	0.57746	|||||.....	225.49637
259	1	0.44911	|||||.....	196.18596
260*	0	0.44911	|||||.....	228.62377
261*	0	0.44911	|||||.....	228.62377
262	1	0.44911	|||||.....	196.18596
263*	1	0.57746	|||||.....	225.49637
264*	0	0.44911	|||||.....	228.62377
265*	0	0.44911	|||||.....	228.62377
266	0	0.57746	|||||.....	193.03618
267	1	0.44911	|||||.....	196.18596
268	1	0.44911	|||||.....	196.18596
269*	0	0.44911	|||||.....	228.62377
270*	0	0.44911	|||||.....	228.62377
271	1	0.44911	|||||.....	196.18596

272*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
273*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
274	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
275*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
276	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
277*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
278	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
279*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
280*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
281	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
282*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
283	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
284*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
285	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
286	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
287	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
288*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....

NCSS 12.0.4

5/17/2023 1:26:51 PM 41

Logistic Regression Report

Dataset ... \NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Residual Diagnostics Report For validvote = 1 (Continued)

Row	Actual validvote	Hat Diagonal	Deviance Change (DFDev)	Chi-Square Change (DFChi2)
289*	0	0.44911	108.14792	228.62377
290	1	0.44911	93.71207	196.18596
291	0	0.57746	115.62666	193.03618
292	0	0.57746	115.62666	193.03618
293	1	0.44911	93.71207	196.18596
294	1	0.44911	93.71207	196.18596
295	0	0.57746	115.62666	193.03618
296*	0	0.44911	108.14792	228.62377
297*	1	0.57746	134.47151	225.49637
298	0	0.57746	115.62666	193.03618
299*	0	0.44911	108.14792	228.62377
300*	0	0.44911	108.14792	228.62377
301*	0	0.44911	108.14792	228.62377
302*	0	0.44911	108.14792	228.62377
303	0	0.57746	115.62666	193.03618
304	0	0.57746	115.62666	193.03618
305	0	0.57746	115.62666	193.03618
306*	0	0.44911	108.14792	228.62377
307	0	0.57746	115.62666	193.03618
308*	0	0.44911	108.14792	228.62377
309	0	0.57746	115.62666	193.03618
310	1	0.44911	93.71207	196.18596
311*	1	0.57746	134.47151	225.49637
312	0	0.57746	115.62666	193.03618
313	0	0.57746	115.62666	193.03618

314	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
315	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
316*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
317*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
318*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
319	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
320*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
321	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
322	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
323*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
324*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
325*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
326*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
327*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
328*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
329	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
330	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
331*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
332	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
333	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
334*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
335*	1	0.96226	|||||.....	159.98894	|||||.....	166.09627	|||||.....
336*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....

NCSS 12.0.4

5/17/2023 1:26:51 PM 42

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Residual Diagnostics Report For validvote = 1 (Continued)

Row	Actual validvote	Hat Diagonal	Deviance Change (DFDev)	Chi-Square Change (DFChi2)
337	1	0.44911	|||||.....	196.18596
338	0	0.57746	|||||.....	193.03618
339	0	0.57746	|||||.....	193.03618
340	1	0.44911	|||||.....	196.18596
341*	0	0.44911	|||||.....	228.62377
342	1	0.44911	|||||.....	196.18596
343	0	0.57746	|||||.....	193.03618
344*	0	0.44911	|||||.....	228.62377
345	0	0.57746	|||||.....	193.03618
346*	0	0.44911	|||||.....	228.62377
347	1	0.44911	|||||.....	196.18596
348*	1	0.96226	|||||.....	166.09627
349	1	0.44911	|||||.....	196.18596
350*	0	0.44911	|||||.....	228.62377
351	0	0.57746	|||||.....	193.03618
352*	1	0.57746	|||||.....	225.49637
353*	0	0.44911	|||||.....	228.62377
354*	1	0.57746	|||||.....	225.49637
355	0	0.57746	|||||.....	193.03618

356*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
357	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
358	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
359*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
360*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
361*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
362*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
363*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
364	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
365*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
366	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
367	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
368*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
369	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
370*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
371*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
372*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
373*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
374	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
375*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
376*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
377*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
378*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
379	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
380	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
381	0	0.96226	|||||.....	56.75007	|||||.....	58.81234	|||||.....
382*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
383*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
384*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....

NCSS 12.0.4

5/17/2023 1:26:51 PM 43

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Residual Diagnostics Report For validvote = 1 (Continued)

Row	Actual validvote	Hat Diagonal	Deviance Change (DFDev)	Chi-Square Change (DFChi2)
385*	1	0.57746	134.47151	225.49637
386	0	0.57746	115.62666	193.03618
387	0	0.57746	115.62666	193.03618
388	0	0.57746	115.62666	193.03618
389*	0	0.44911	108.14792	228.62377
390	0	0.57746	115.62666	193.03618
391*	0	0.44911	108.14792	228.62377
392*	0	0.44911	108.14792	228.62377
393	1	0.44911	93.71207	196.18596
394*	1	0.57746	134.47151	225.49637
395	0	0.57746	115.62666	193.03618
396	1	0.44911	93.71207	196.18596
397*	1	0.57746	134.47151	225.49637

398*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
399	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
400	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
401	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
402	0	0.96226	|||||.....	56.75007	|||||.....	58.81234	|||||.....
403	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
404*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
405*	1	0.96226	|||||.....	159.98894	|||||.....	166.09627	|||||.....
406*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
407	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
408*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
409	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
410*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
411	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
412	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
413*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
414	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
415	0	0.96226	|||||.....	56.75007	|||||.....	58.81234	|||||.....
416	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
417	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
418	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
419	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
420	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
421	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
422	0	0.96226	|||||.....	56.75007	|||||.....	58.81234	|||||.....
423	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
424	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
425	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
426*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
427*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
428	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
429	0	0.96226	|||||.....	56.75007	|||||.....	58.81234	|||||.....
430	0	0.96226	|||||.....	56.75007	|||||.....	58.81234	|||||.....
431*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
432	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....

NCSS 12.0.4

5/17/2023 1:26:51 PM 44

Logistic Regression Report

Dataset ...\\NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Residual Diagnostics Report For validvote = 1 (Continued)

Row	Actual validvote	Hat Diagonal	Deviance Change (DFDev)	Chi-Square Change (DFChi2)
433	0	0.57746	|||||.....	193.03618
434*	0	0.44911	|||||.....	228.62377
435*	0	0.44911	|||||.....	228.62377
436	0	0.57746	|||||.....	193.03618
437	0	0.57746	|||||.....	193.03618
438	0	0.96226	|||||.....	58.81234
439*	0	0.44911	|||||.....	228.62377

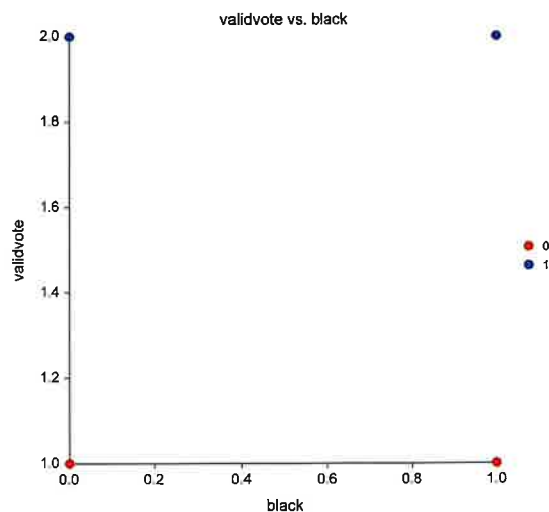
440*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
441	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
442*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
443	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
444*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
445	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
446*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
447*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
448*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
449*	1	0.57746	|||||.....	134.47151	|||||.....	225.49637	|||||.....
450*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
451	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
452	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
453	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
454*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
455	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
456	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
457	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....
458*	0	0.44911	|||||.....	108.14792	|||||.....	228.62377	|||||.....
459	1	0.44911	|||||.....	93.71207	|||||.....	196.18596	|||||.....
460	0	0.57746	|||||.....	115.62666	|||||.....	193.03618	|||||.....

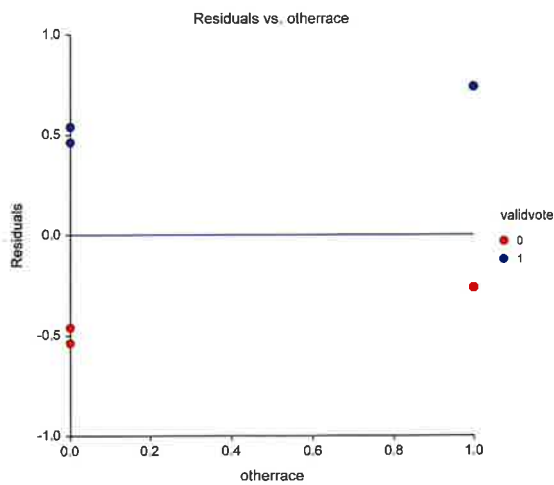
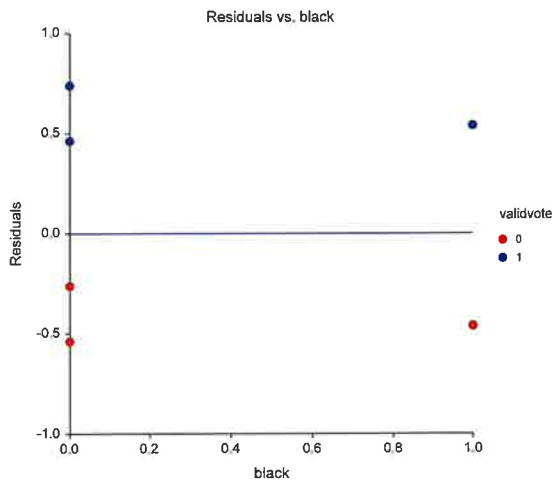
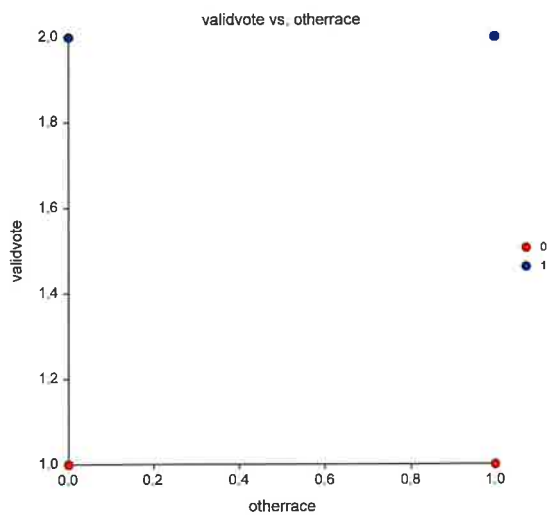
NCSS 12.0.4

5/17/2023 1:26:51 PM 45

Logistic Regression Report

Dataset ... \NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Diagnostic Plots

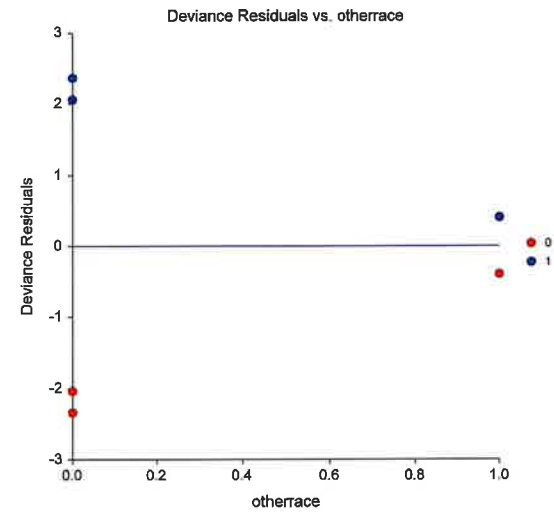
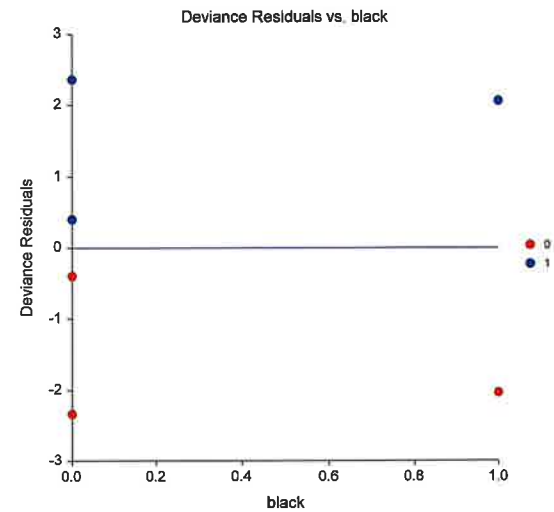


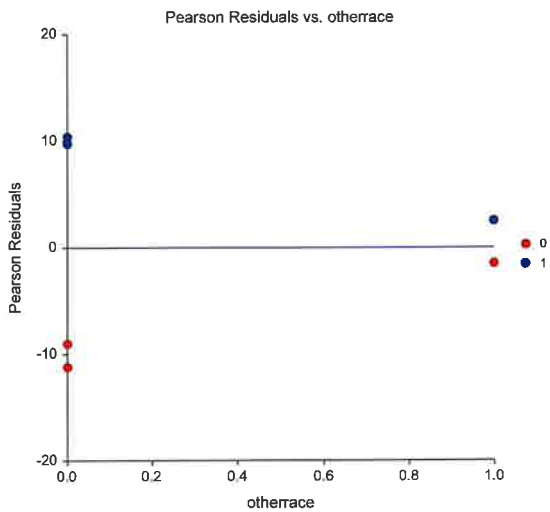
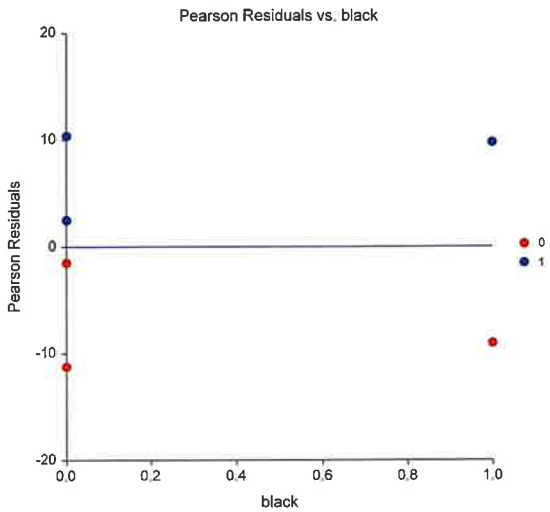
NCSS 12.0.4

5/17/2023 1:26:51 PM 46

Logistic Regression Report

Dataset ...NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight



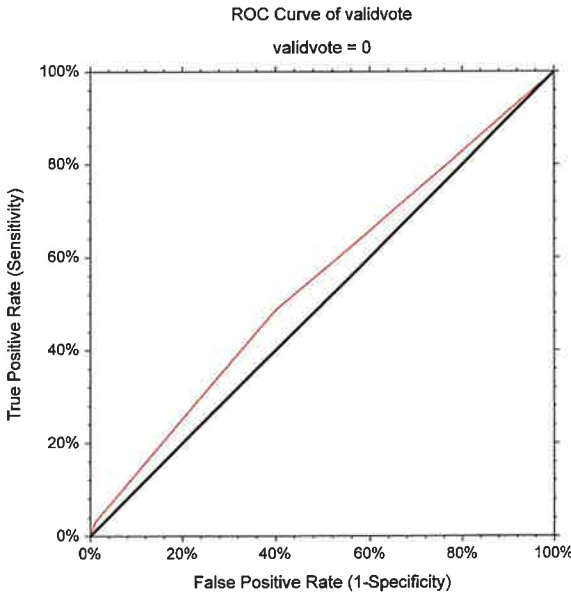
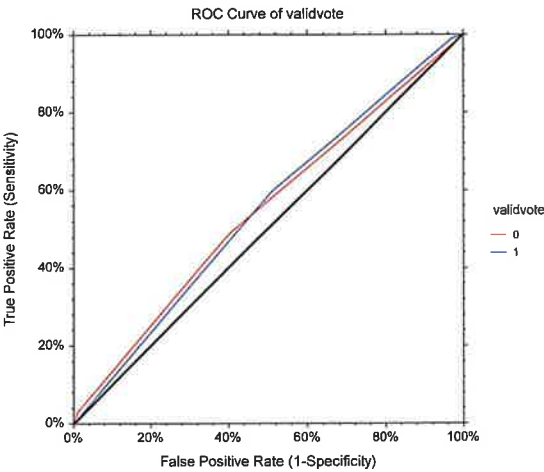


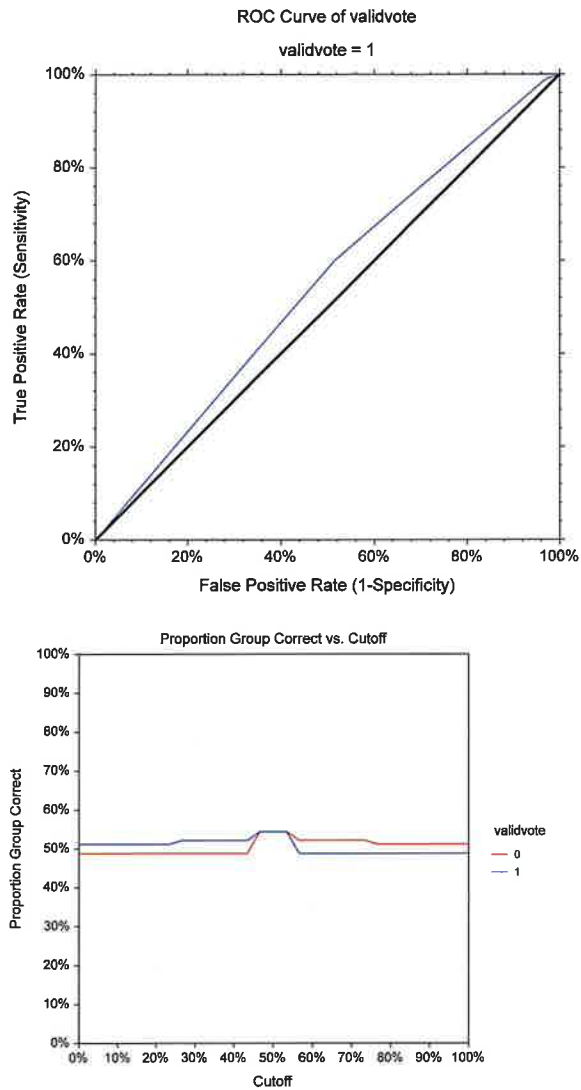
NCSS 12.0.4

5/17/2023 1:26:51 PM 47

Logistic Regression Report

Dataset ...\\NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight





NCSS 12.0.4

5/17/2023 1:26:51 PM 48

Logistic Regression Report

Dataset ...\\NCSSmsexport.NCSS
Y (Ref Value) validvote(0)
Frequency commonpostweight

Procedure Input Settings

Autosave Inactive

Variables, Model Tab

-- Variables -----

Y:	validvote
Reference Value:	0
Numeric X's:	black, otherrace
Categorical X's:	<Empty>
Frequencies:	commonpostweight
Validation Filter:	<Empty>

-- Regression Model -----

Terms:	1-Way
Remove Intercept	Unchecked

-- Prior Y-Value Probabilities (Changes Intercept and Predicted Values)

Priors:	Equal across Y Values
---------	-----------------------

Subset Selection Tab

-- Select the Best Subset from the X's -----

Search for the Best Subset from the X's	Unchecked
---	-----------

Iteration Tab

-- Iteration Options -----

Maximum Iterations:	20
Iteration Termination:	0.000001

Reports Tab

-- Select Reports -----

-- Summaries -----

Run Summary	Checked
Y Variable Summary	Checked

-- Subset Selection -----

Subset Summary	Checked
Subset Detail	Checked

-- Estimation -----

Coefficient Significance Tests	Checked
Coefficient Confidence Limits	Checked
Odds Ratios	Checked
Estimated Model (Reading Form)	Checked
Estimated Model (Transformation Form)	Checked

-- Goodness-of-Fit -----

Analysis of Deviance	Checked
Log-Likelihood and R ²	Checked

NCSS 12.0.4

5/17/2023 1:26:51 PM 49

Logistic Regression Report

Dataset ...\\NCSSmsexport.NCSS
 Y (Ref Value) validvote(0)
 Frequency commonpostweight

Procedure Input Settings (Continued)**Reports Tab (Continued)****-- Classification**

Classification Matrix	Checked
Validation Matrix	Checked
ROC Report	Checked

-- Row-by-Row Lists

Row Classification Report:	None
Row Classification Probs Report:	None
Simple Residuals Report:	None
Residuals	Checked
DfBetas	Checked
Influence Diagnostics	Checked
Residual Diagnostics	Checked

Report Options Tab**-- Confidence Levels**

Confidence Level:	95
-------------------	----

-- Variable and Value Labels

Variable Names:	Names
Value Labels:	Data Values
Stagger label and output if label length is ≥	15

-- Decimal Places

Precision:	Single
Probability:	5
Beta (Coefficients):	5
SE(Beta):	5
Z:	3
Log Likelihood:	5
Odds Ratio:	5
DFBeta:	5
Coefficients in Reading Form Model:	2

Plots Tab**-- Select Plots**

Y vs X	Checked
ROC Curves (Combined)	Checked
ROC Curve (Separate)	Checked

Residuals vs X	Checked
Skip Reference Value	Checked
Deviance Residuals vs X	Checked
Pearson Residuals vs X	Checked
Pr(Correct) vs Cutoff	Checked

-- ROC Curves and Prob(Correct) vs Cutoff Plot Options -----

Number Cutoffs: 29

NCSS 12.0.4 5/17/2023 1:26:51 PM 50

Logistic Regression Report

Dataset	... \NCSSmsexport.NCSS
Y (Ref Value)	validvote(0)
Frequency	commonpostweight

Procedure Input Settings (Continued)

Storage Tab

-- Data Storage Options -----

Storage Option: Do not store data

Appendix B

There are three possible ways to measure turnout in the 2020 CES using the validation variables. Two use only the "CL_2020gvm" vote validation variable while the third uses this variable in conjunction with self-reported registration (votereg_post) and self-reported turnout (CC20_401).

1. Un-matched as non-voters. The first specification defines voters as respondents with a validated voting record no matter their mode of participation, and defines nonvoters as both matched non-voters and non-matched respondents. This specification retains the integrity of the full CES sample, no missing values are created. The justification for this approach is the fact that the most common reason that Catalist will not have a record for an individual is because that individual is not registered to vote. Indeed, rates of self-reported non-registration and non-voting are much higher among un-matched respondents than among those for whom there is a match.

2. Only matched non-voters as non-voters. The second specification defines nonvoters as only matched non-voters. This specification reduces the CES sample and results in validated turnout estimates that are larger than those in the first specification. However, this specification increases the level of certainty in the identification of non-voters in the CES, because there could possibly be actual voters among nonmatched respondents.

3. Matched non-voters and self-reported non-voters as non-voters. The third specification defines non-voters as (1) matched non-voters, (2) non-matched respondents who reported not being registered to vote in the "votereg_post" question, and (3) non-matched respondents who are self-reported non-voters in the "CC20_401" question. This definition excludes non-matched respondents who are self-reported voters (these individuals would be coded as missing). This definition assumes that self-reported non-voters are honest about their non-participation because there is no incentive to go against the democratic norm of participation.

Appendix C

NCSS 12.0.18

Two-Sample Comparison Report

Dataset ...\\VALIDATE VOTED BLACK & WHITE T TEST.NCSS

Confidence Intervals of Means

Group	N	Mean	Standard Deviation	Standard Error	95.0% C. I. of μ	
					Lower Limit	Upper Limit
1	121	0.049	0.218	0.01981818	0.009761379	0.08823862
2	61	0.1475	0.357	0.04570917	0.05606806	0.2389319

Two-Sided Confidence Interval for $\mu_1 - \mu_2$

Variance Assumption	DF	Mean Difference	Standard Deviation	Standard Error	T*	95.0% C. I. of $\mu_1 - \mu_2$	
						Lower Limit	Upper Limit
Equal	180	-0.0985	0.2723337	0.04276412	1.9732	-0.1828835	-
0.01411652							
Unequal	83.21	-0.0985	0.4182977	0.04982056	1.9889	-0.1975874	
0.0005874241							

Equal-Variance T-Test

Alternative Hypothesis	Mean Difference	Standard Error of Difference	T-Statistic	d.f.	Prob Level	Reject H0 at $\alpha =$
0.050						
$\mu_1 - \mu_2 > 0$	-0.0985	0.04276412	-2.3033	180	0.98880	No

Aspin-Welch Unequal-Variance T-Test

Alternative Hypothesis	Mean Difference	Standard Error of Difference	T-Statistic	d.f.	Prob Level	Reject H0 at $\alpha =$
0.050						
$\mu_1 - \mu_2 > 0$	-0.0985	0.04982056	-1.9771	83.21	0.97433	No

Procedure Input Settings

Autosave Inactive

Data Tab

-- Group Summary Values -----

Group 1 Sample Size: 121

Group 1 Mean:	.049
Group 1 Standard Deviation:	.218
Group 2 Sample Size:	61
Group 2 Mean:	.1475
Group 2 Standard Deviation:	.357

Reports Tab

-- Confidence Intervals -----

Confidence Level:	95
Confidence Intervals of Each Group Mean	Checked
Confidence Interval of $\mu_1 - \mu_2$	Checked
Limits:	Two-Sided
Confidence Intervals of Each Group Standard Deviation	Unchecked
Confidence Interval of σ_1/σ_2	Unchecked

Two-Sample Comparison Report

Dataset ...\\VALIDATE VOTED BLACK & WHITE T TEST.NCSS

Procedure Input Settings (Continued)**Reports Tab (Continued)**

-- Tests -----

Alpha:	0.05
H0: $\mu_1 - \mu_2 =$	0.0
Ha:	$\mu_1 - \mu_2 > H_0$ Value (one-sided)

-- Parametric -----

Equal-Variance T-Test	Checked
Unequal-Variance T-Test	Checked
Z-Test	Unchecked
Equivalence Test	Unchecked
Power Report for Equal-Variance T-Test	Unchecked
Power Report for Unequal-Variance T-Test	Unchecked

-- Assumptions -----

Variance-Ratio Test	Unchecked
---------------------	-----------

-- Decimal Places -----

Means, Differences, and C.I. Limits:	Auto (Up to 7)
Standard Deviations and Standard Errors:	Auto (Up to 7)
P-Values and Powers:	5
Test Statistics:	4